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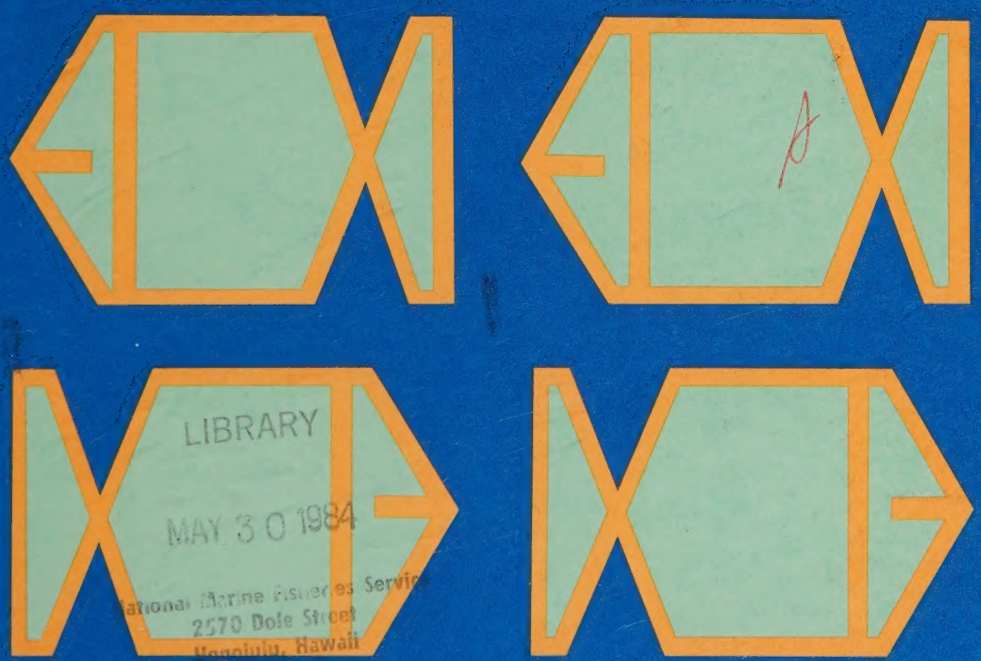

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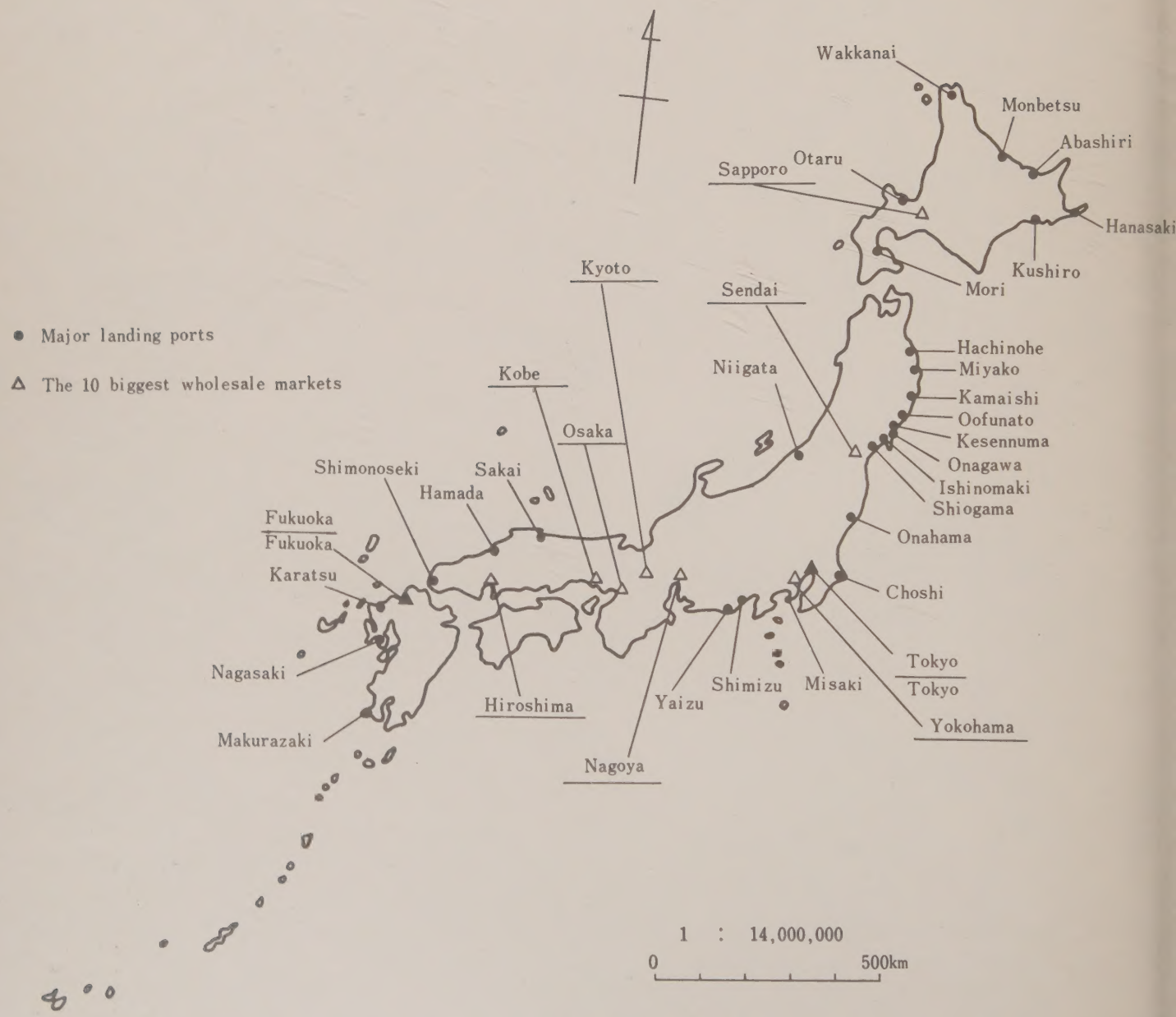
MAJOR LANDING PORTS AND THE 10 BIGGEST WHOLESALE MARKETS IN JAPAN



FISHERIES STATISTICS OF JAPAN

1982

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FOREWORD

The bulletin "Fisheries Statistics of Japan" contains result of major statistical surveys on fishery structure, production,marketing and economy which are conducted by the government of Japan (Statistics and Information Department, The Ministry of Agriculture, Forestry and Fisheries), and it has been published yearly since 1963.

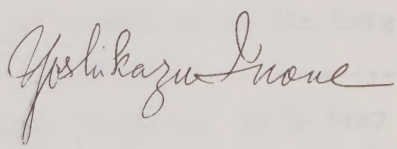
Recently, Japanese fisheries lie under very severe circumstances; The restrictions of fishing operation caused by establishment of the "200 sea mile fishing zone" and the increased cost of fishing operation resulted from the high price of fuel oil.

On the other hand, consumption of fishery products has been stagnant, because of high price of fishery commodities and depressed hous-hold expenditure.

In order to keep stable supply of fishery products as important protein resources in nation's nutrition under such circumstances, our government promotes cultivation and effective utilization of fishery resources in the water around Japan and makes an effort to keep overseas fishing ground through diplomacy and international cooperation in the field of fisheries.

Lastly we hope this bulletin will benefit our readers to understand the current situation of Japanese fishery and also contribute to development of international fisheries.

March,1984



YOSHIKAZU INOUE
Director,
Statistics and Information Department
Ministry of Agriculture, Forestry and Fisheries
Government of Japan

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Table No. III-5 ~ 7	Bureau of Customs,Ministry of Finance
Reference Table 1, 2	F. A. O.

2 Period of inquisition

As a principle, the statistics in this bulletin are inquired by the calender year but the figures of the whaling in the Antarctic Ocean are given for the "Whaling year"

3 Symbols

The following symbols are used in this publication:

[0] means "Less than the unit amount"

[---] means "Unknown or not available"

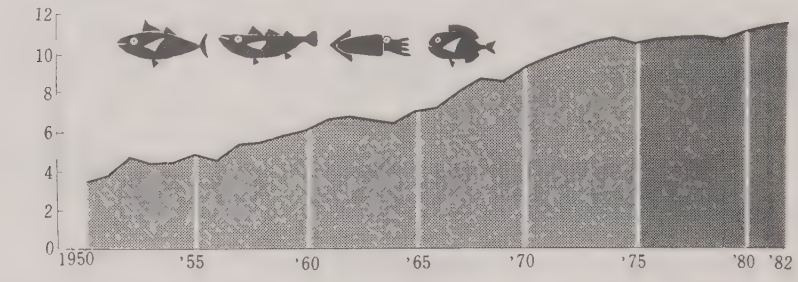
[-] means "No record"

[Δ] means "Minus"

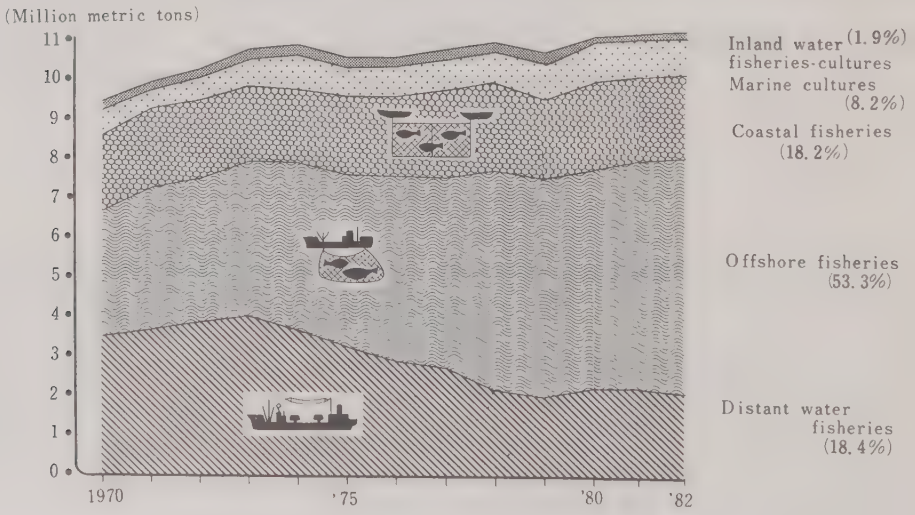
STATISTICAL CHARTS

I. FISHERY PRODUCTION

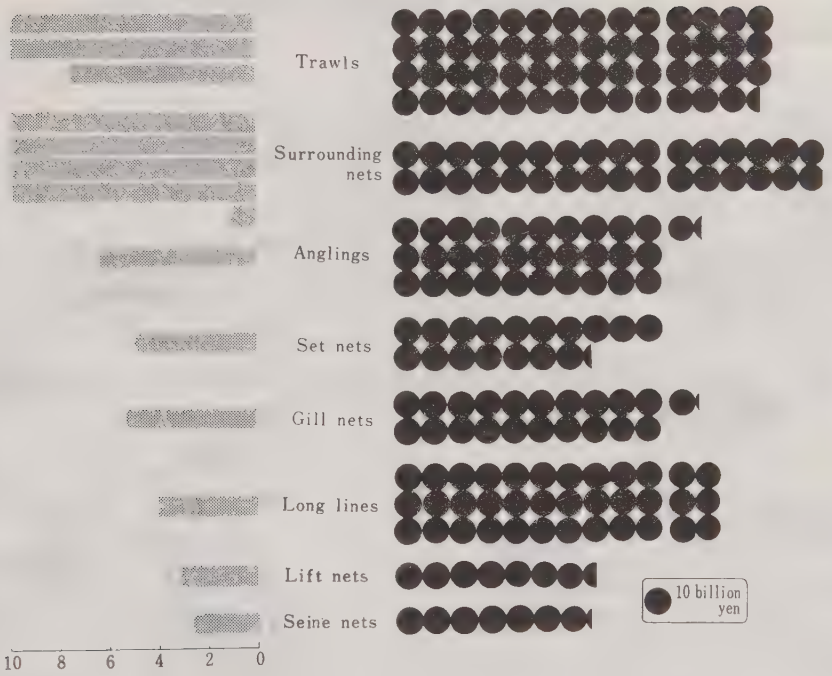
1. Annual Trend of Total Catch, 1950～1982



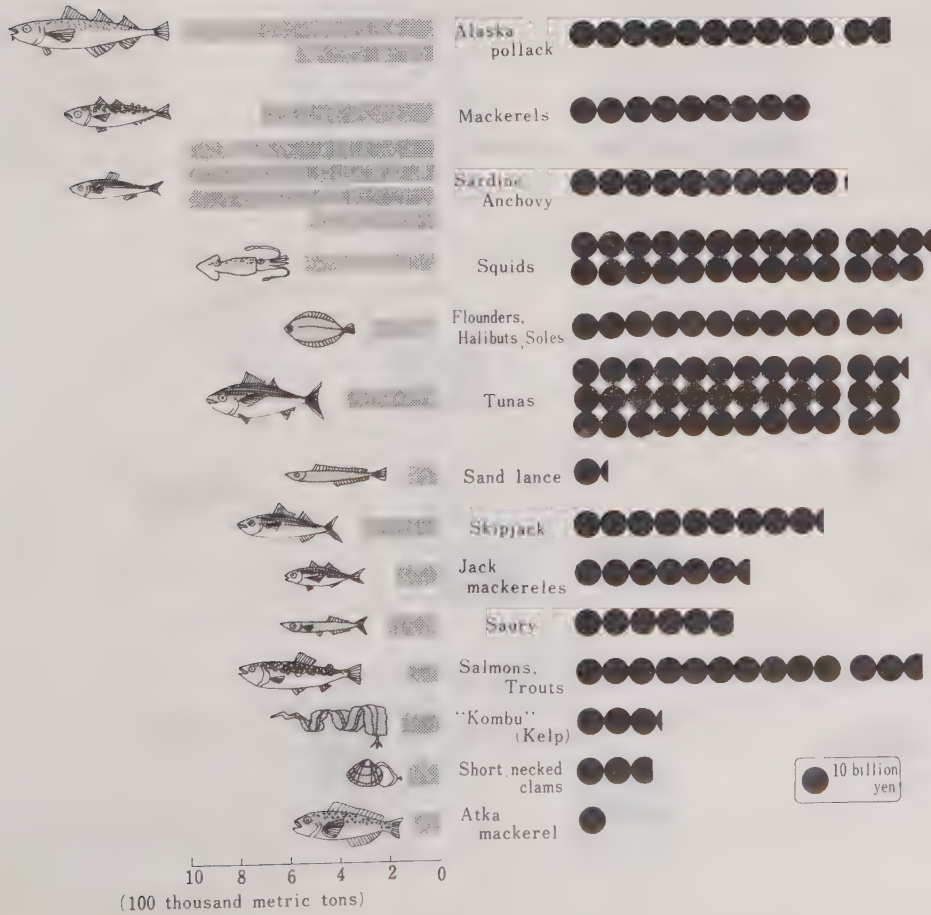
2. Total Catch by Type of Fisheries, 1970～1982



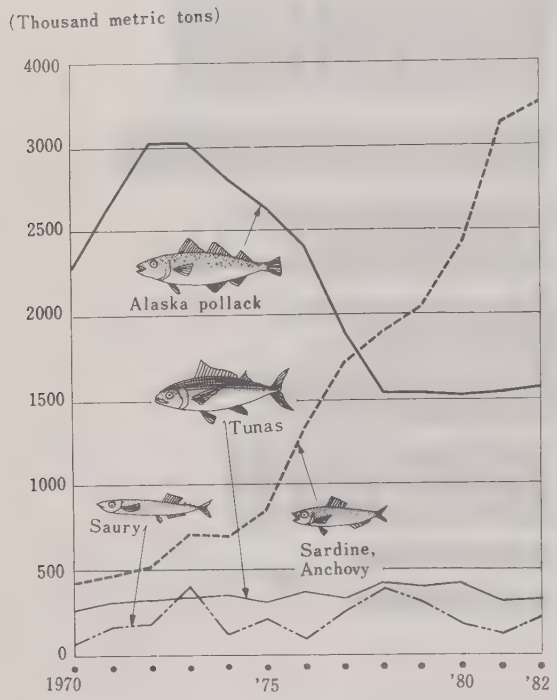
3 Catch by Type of Fishery, 1982

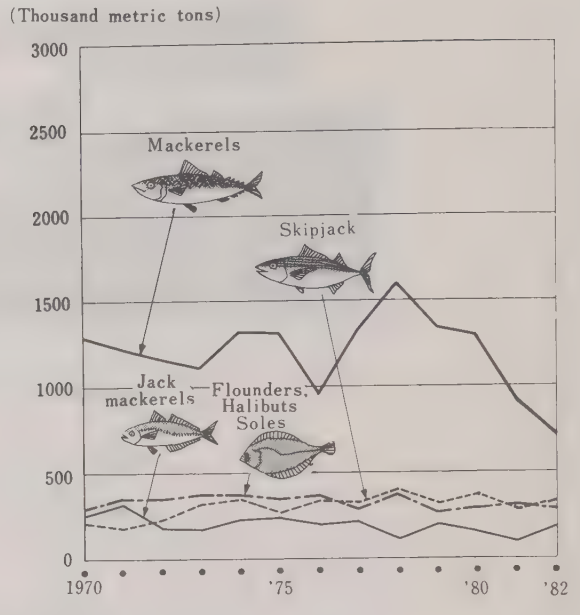


4 Catch by Major Fish, 1982

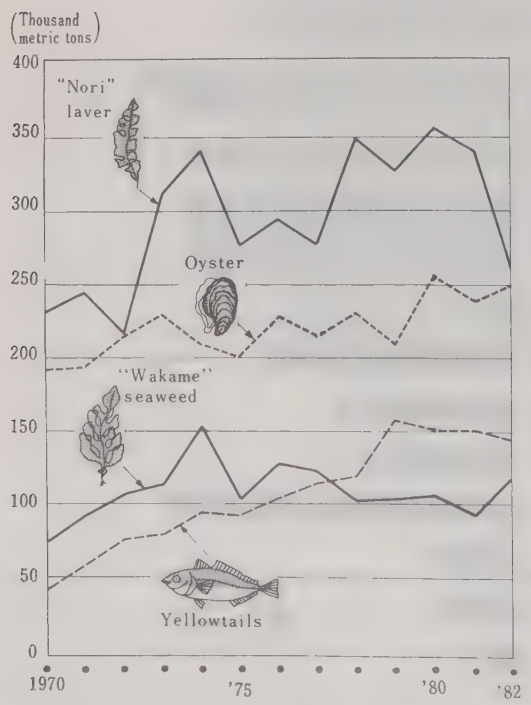


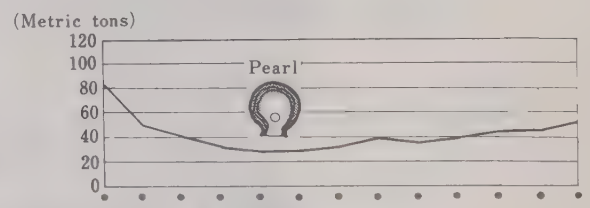
5 Catch by Major Fish, 1970～1982

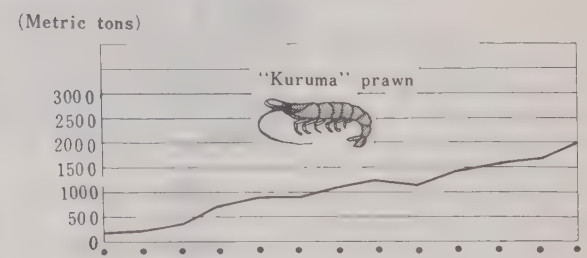


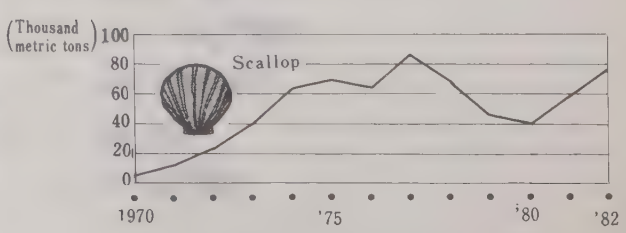


6 Yield of Marine Cultures, 1970～1982

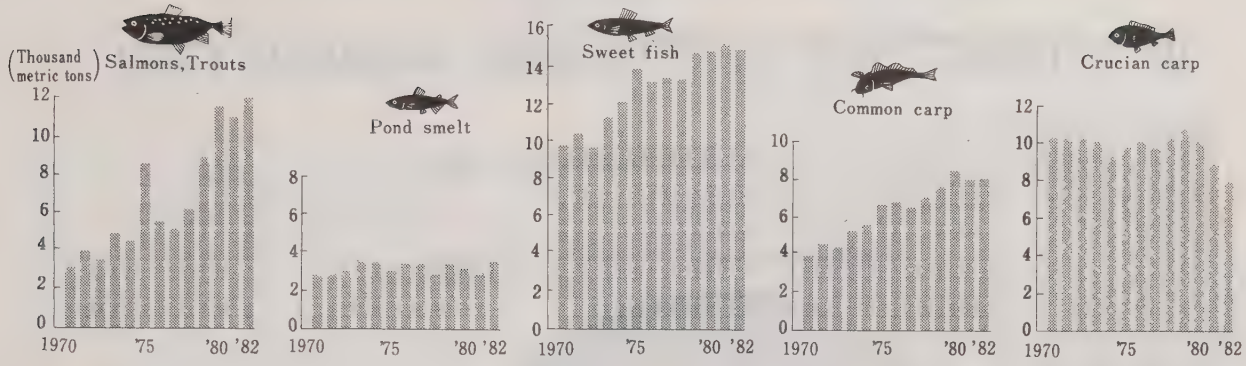




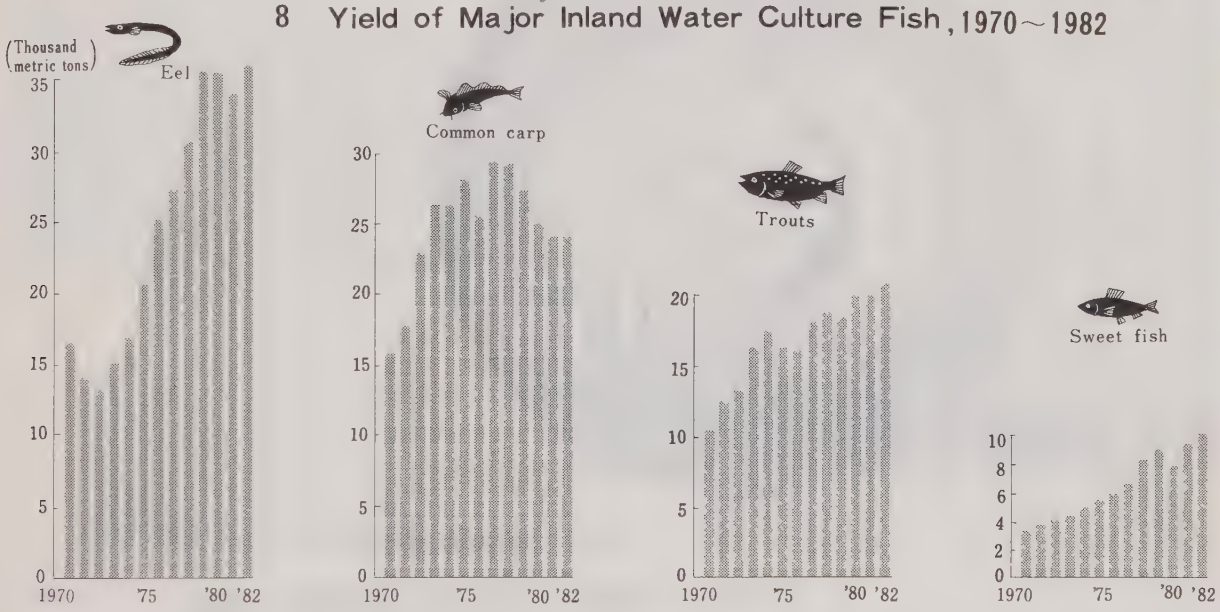




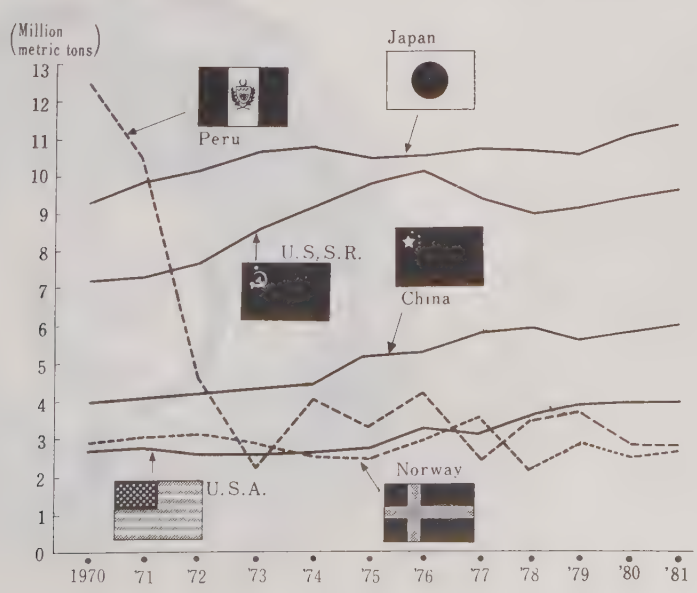
7 Catch of Major Inland Water Fish, 1970～1982



8 Yield of Major Inland Water Culture Fish, 1970～1982

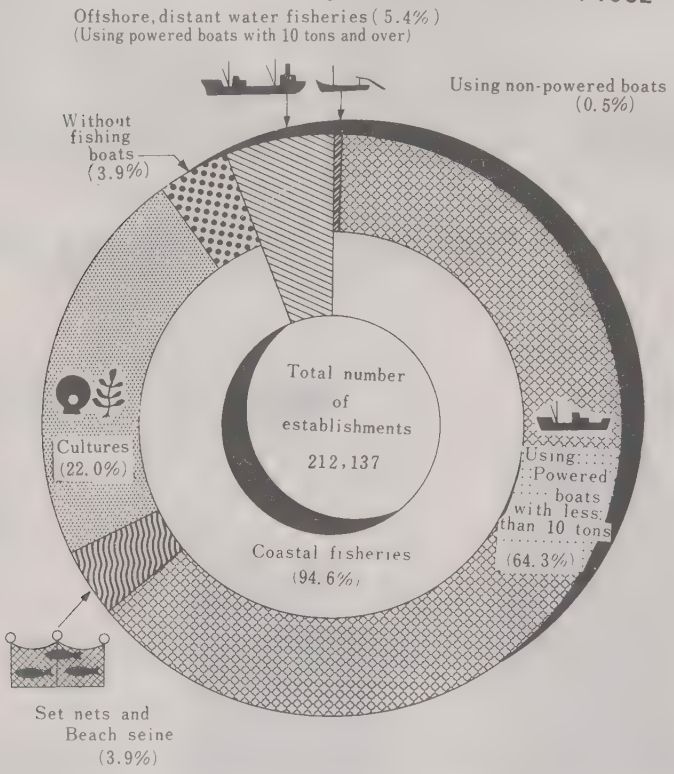


9 Catch of the World by Countries, 1970～1981

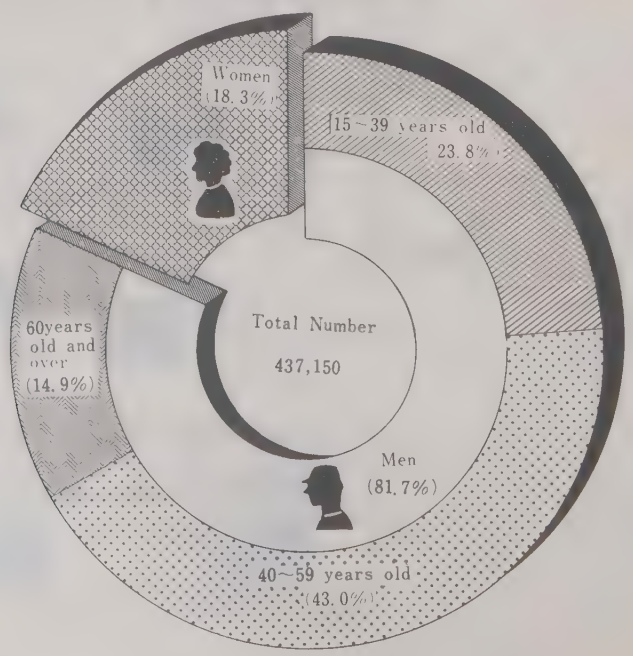


Ⅱ STRUCTURE OF FISHERY PRODUCTION

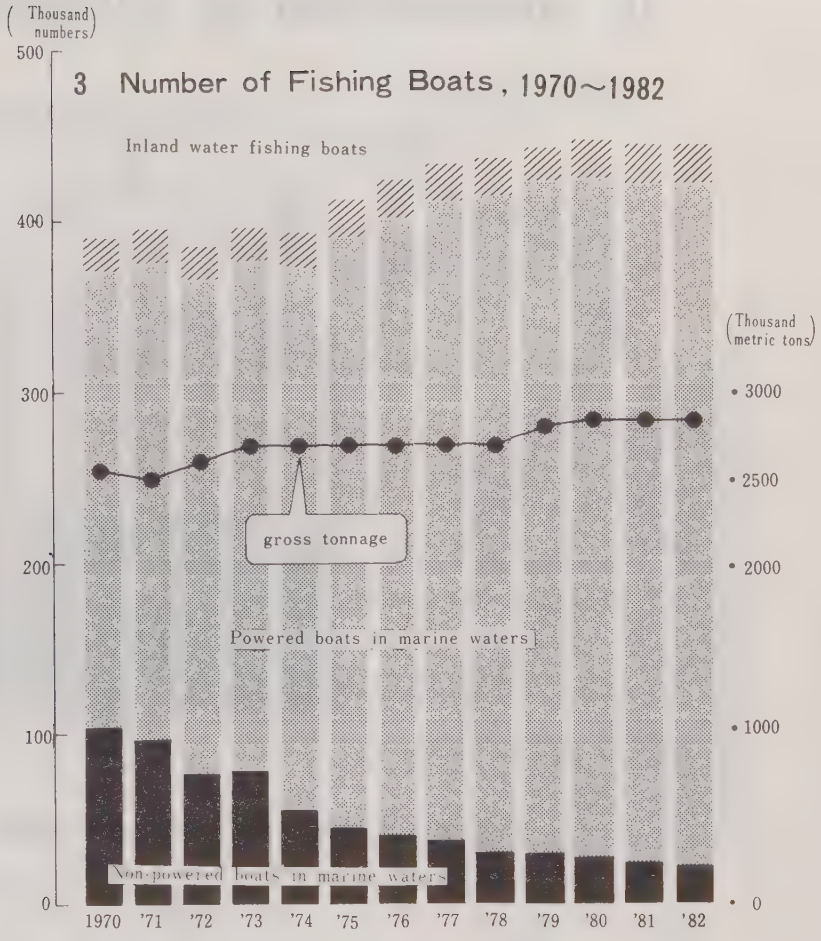
1 Number of Marine Fishery Establishments, 1982



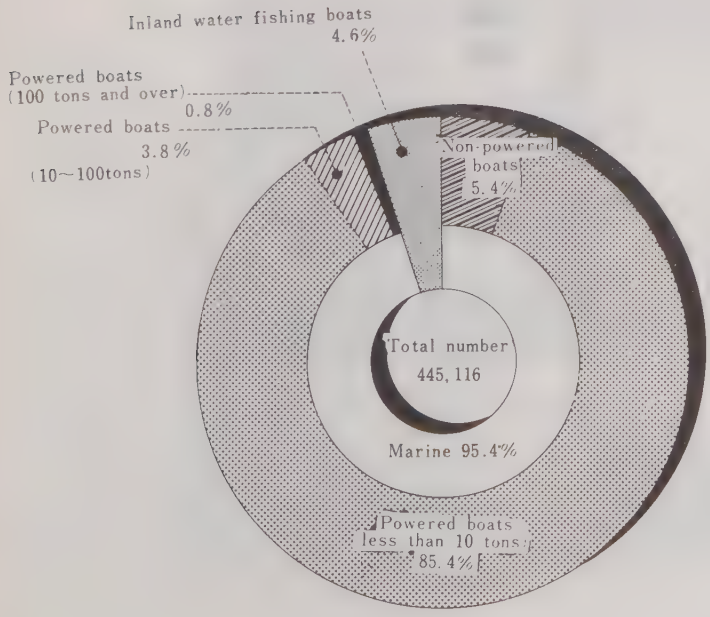
2 Number of Marine Fishery Workers, 1982



3 Number of Fishing Boats, 1970～1982



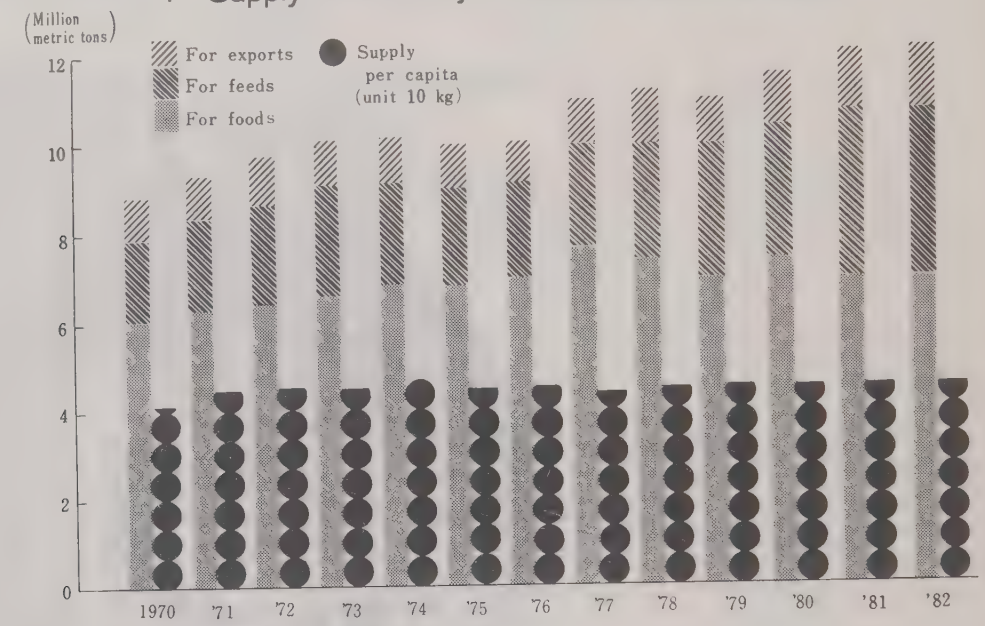
4 Number of Fishing Boats, 1982



III MARKETING OF FISHERY PRODUCTS

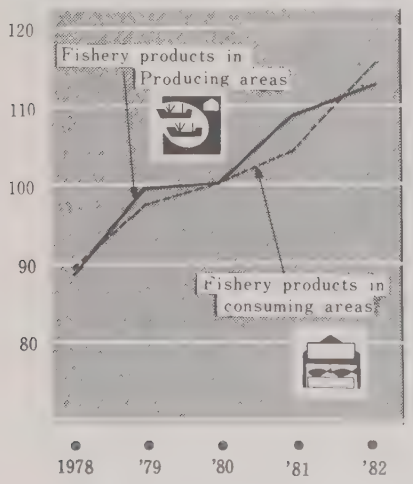
1 Supply of Fishery Products, 1970～1982

Domestic products
(Fish and shellfish)

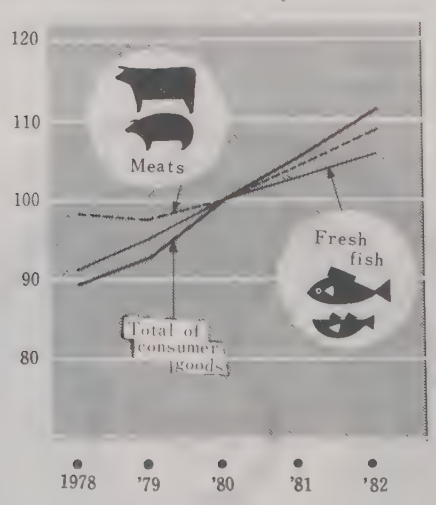


2 Price Index of Fishery Products (1980=100) 1978～1982

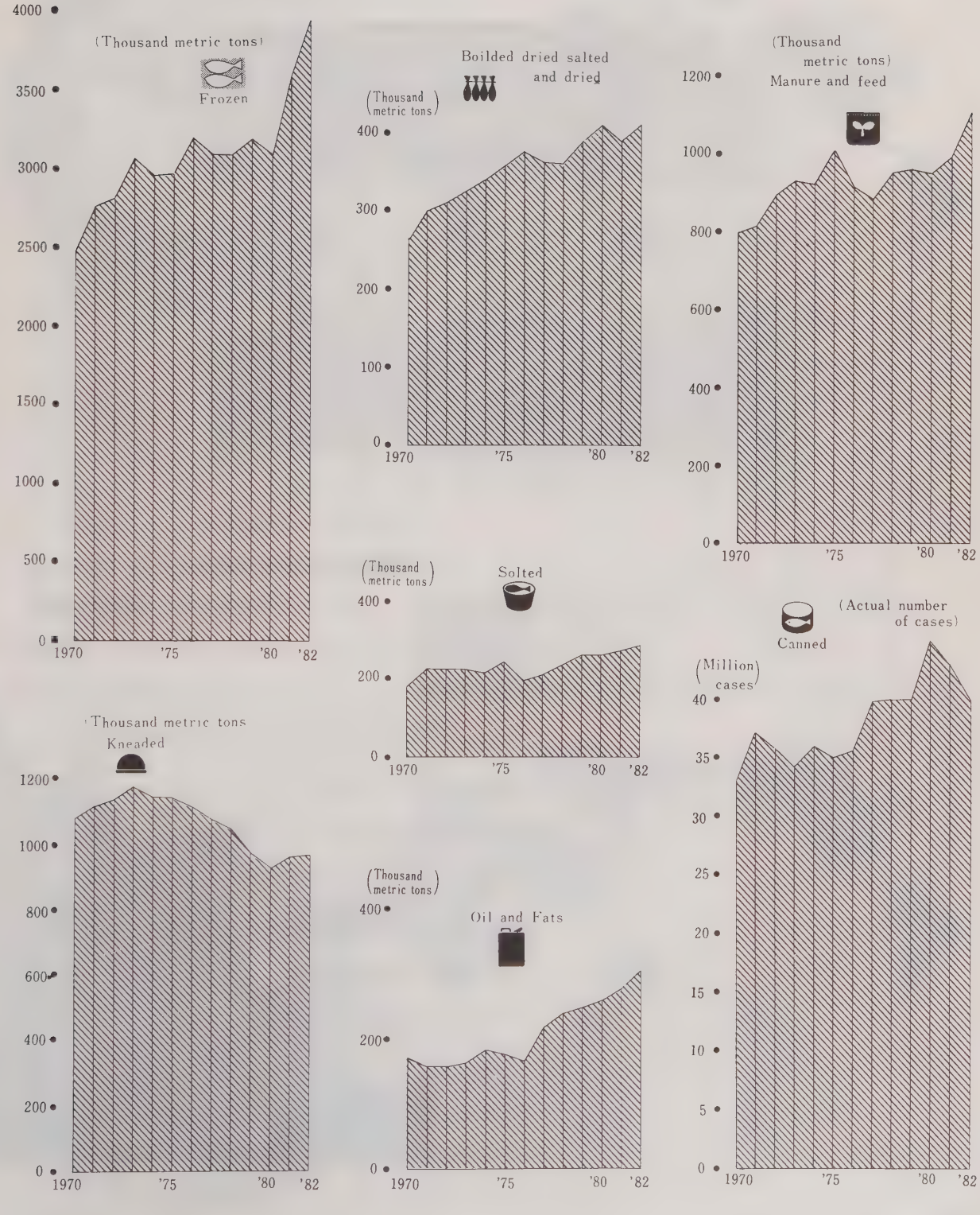
Wholesale price of fishery products



Price of consumer goods

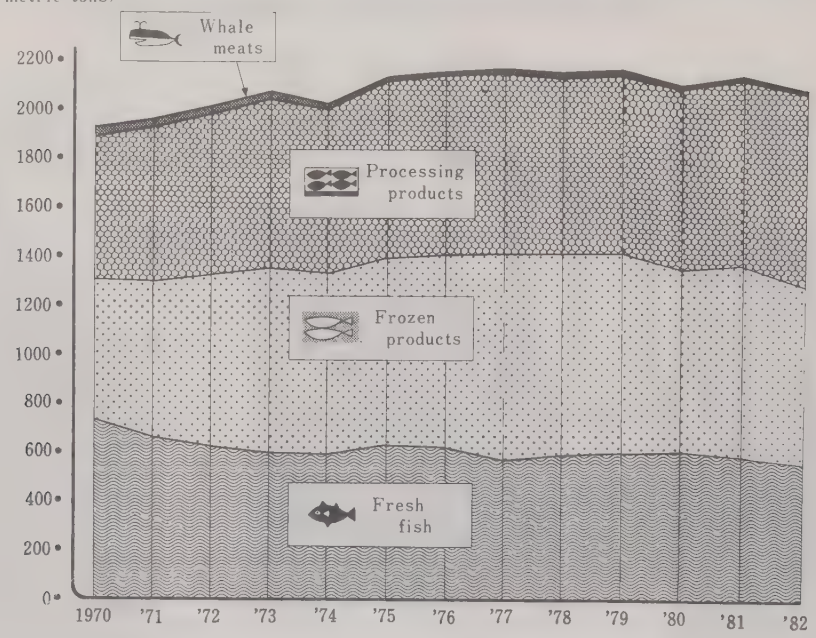


3 Fishery Processing Products, 1970～1982



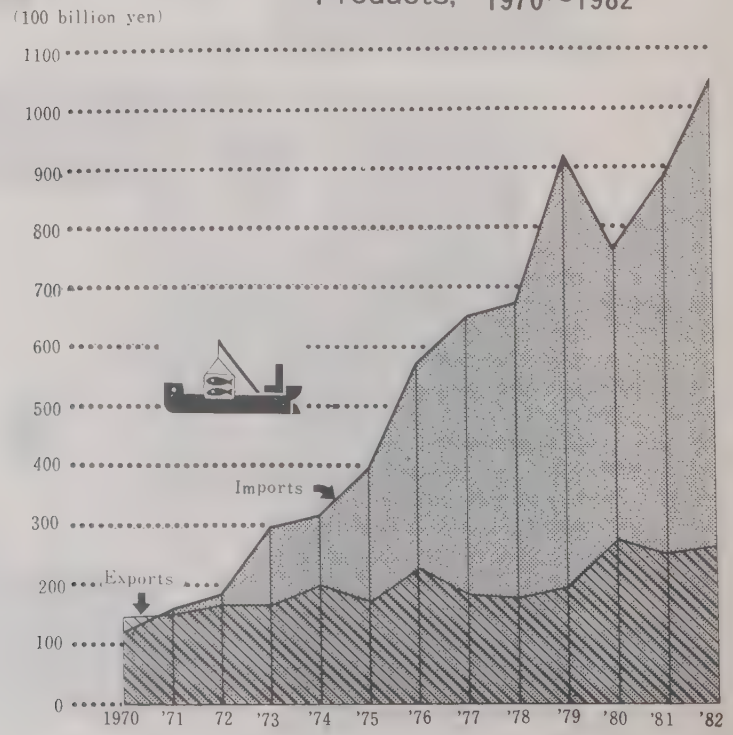
4 Volume Transacted by Group of Commodity in Six Large Central Wholesale Markets, 1970～1982

(thousand metric tons)

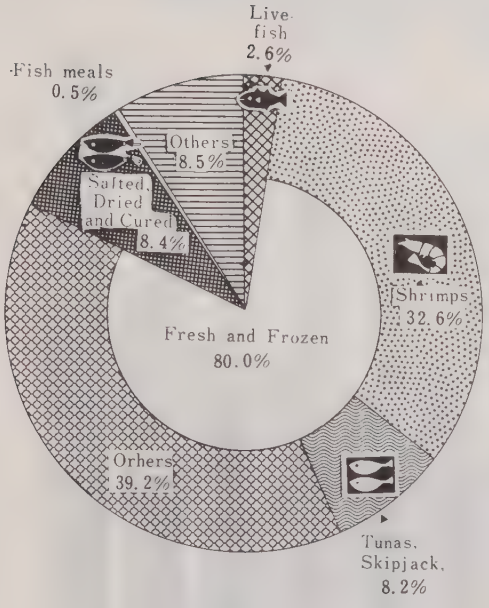


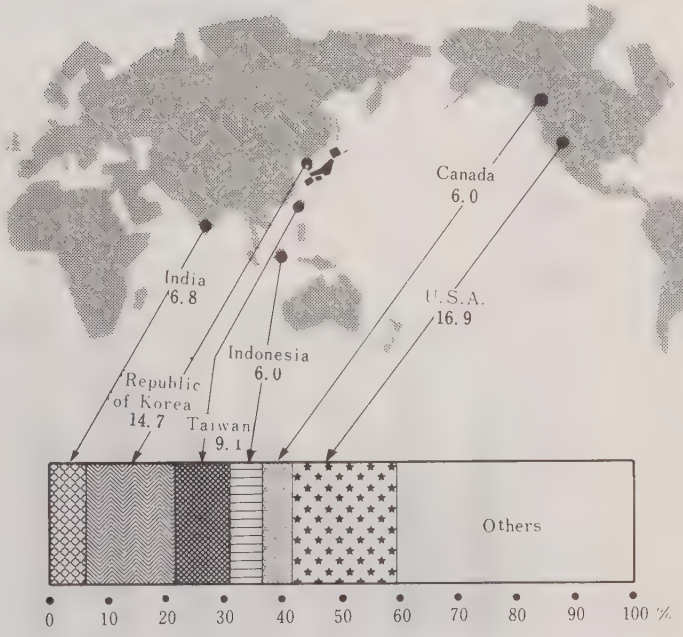
5 Exports and Imports of Fishery Products, 1970～1982

(100 billion yen)

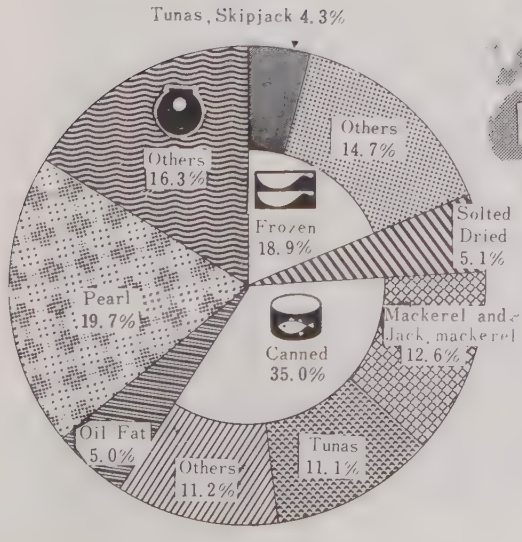


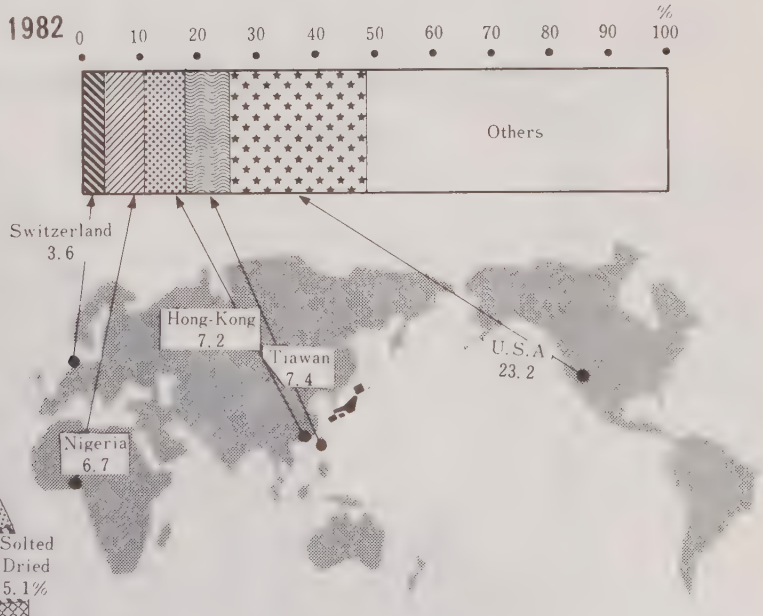
6 Imports of Fishery Products, 1982 (in value)





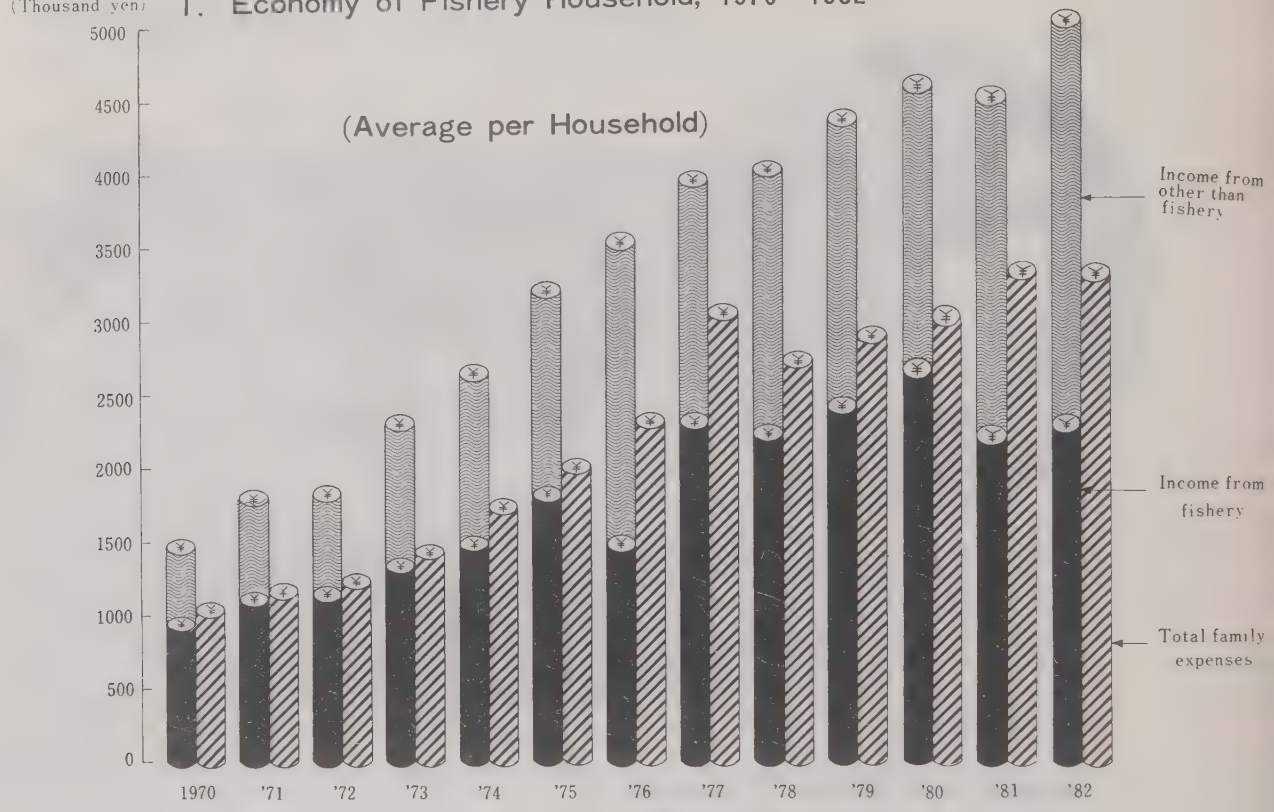
7 Exports of Fishery Products, (in value) 1982



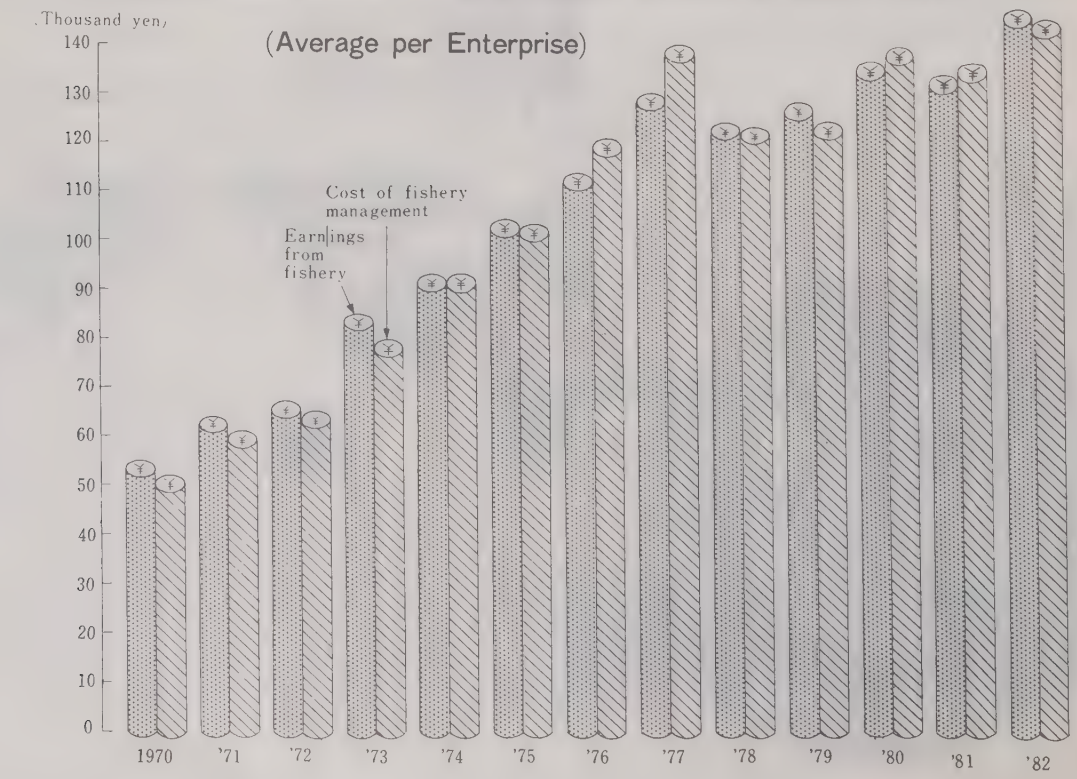


Ⅳ. ECONOMY OF FISHERY ESTABLISHMENTS

1. Economy of Fishery Household, 1970～1982



2. Economy of Middle and Small Size Fishery Enterprise, 1970～1982



STATISTICAL TABLES

I FISHERY PRODUCTION

I -- 1 SUMMARY OF CATCH BY FISHERY SECTOR, 1960~1982

Unit { Quantity: Thousand metric tons
Value : Hundred million yens

Year	Total		Marine Fisheries		Marine Cultures		Inland Water Fisheries		Inland Water Cultures		Whalings	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Numbers	Value
1960	6,192	3,448	5,817	2,983	284	338	74	80	15	47	19,649	234
1961	6,710	3,952	6,287	3,340	322	455	81	93	18	64	20,848	267
1962	6,864	4,266	6,397	3,567	362	538	84	94	20	68	22,240	269
1963	6,698	4,830	6,200	3,988	389	650	84	98	23	94	22,373	309
1964	6,350	4,976	5,868	4,039	362	724	89	102	29	111	24,410	323
1965	6,908	5,558	6,382	4,516	380	816	113	101	33	126	26,986	376
1966	7,103	6,260	6,558	5,005	405	974	103	118	36	164	22,784	290
1967	7,851	7,026	7,241	5,677	470	1,074	97	109	42	166	21,088	252
1968	8,670	7,448	7,993	6,097	522	1,010	103	119	52	221	21,586	237
1969	8,613	8,488	7,976	6,928	473	1,130	112	144	52	285	17,409	221
1970	9,315	9,692	8,598	7,852	549	1,353	119	170	48	317	16,887	272
1971	9,909	10,894	9,149	8,957	609	1,374	101	214	50	349	16,419	314
1972	10,213	11,796	9,400	9,417	648	1,708	109	231	56	441	17,590	278
1973	10,763	14,641	9,793	11,564	791	2,252	114	299	64	528	14,012	273
1974	10,808	17,084	9,749	13,789	880	2,325	112	348	67	622	14,277	327
1975	10,545	18,870	9,573	15,204	773	2,536	127	417	72	713	13,427	337
1976	10,656	21,862	9,605	17,702	850	2,933	124	415	77	811	9,632	216
1977	10,757	25,451	9,688	20,513	861	3,522	126	486	82	930	9,299	206
1978	10,828	24,511	9,683	18,914	917	4,013	138	508	90	1,076	5,924	124
1979	10,587	26,480	9,477	20,559	879	4,229	136	527	95	1,164	4,918	107
1980	11,122	27,712	9,909	21,336	992	4,687	128	578	94	1,110	5,191	126
1981	11,319	27,779	10,143	21,525	960	4,565	124	625	92	1,064	4,887	111
1982	11,388	29,640	10,231	23,129	938	4,556	122	709	96	1,248	4,967	132

I — 2 SUMMARY OF CATCH BY SPECIES GROUP, 1960～1982

Unit: Thousand metric tons

Year	Total	Marine Waters					Inland Waters				
		Fishes	Molluscs	Crus-taceans	Aquatic plants	Others	Fishes	Molluscs	Crus-taceans	Aquatic plants	Others
1960	6,192	4,463	1,078	126	386	51	60	25	1	1	3
1961	6,710	5,015	985	138	425	49	66	28	2	1	3
1962	6,864	4,911	1,158	149	501	41	69	30	2	1	3
1963	6,698	4,653	1,303	159	425	51	72	33	1	1	2
1964	6,350	4,745	925	153	361	48	80	35	1	0	2
1965	6,908	5,093	1,082	132	406	52	86	56	1	0	2
1966	7,103	5,232	1,097	142	436	57	86	50	1	0	2
1967	7,851	5,742	1,225	149	534	60	92	42	2	0	2
1968	8,670	6,340	1,430	186	503	57	104	44	2	1	4
1969	8,613	6,561	1,238	153	444	53	107	51	3	1	3
1970	9,315	7,289	1,132	146	521	59	103	58	3	1	3
1971	9,909	7,913	1,065	126	587	66	107	36	5	1	2
1972	10,213	8,075	1,217	137	559	59	110	46	5	1	2
1973	10,763	8,645	1,130	141	653	64	124	45	6	1	2
1974	10,808	8,543	1,129	170	601	85	126	44	6	1	3
1975	10,545	8,341	1,156	147	627	75	141	48	7	1	3
1976	10,656	8,378	1,196	129	665	87	142	48	5	1	5
1977	10,757	8,461	1,223	126	638	101	150	49	6	0	3
1978	10,828	8,433	1,232	141	638	155	161	52	9	0	6
1979	10,587	8,277	1,187	134	639	117	168	49	8	0	6
1980	11,122	8,582	1,372	130	695	120	165	43	6	1	8
1981	11,319	8,973	1,226	132	648	124	150	41	6	0	9
1982	11,388	8,996	1,280	151	630	112	170	39	6	1	3

I — 3 CATCH IN QUANTITY

	1978	1979	1980	1981	1982
Total 1)	10,828,289	10,590,423	11,121,846	11,318,652	11,388,138
Marine Fisheries	9,682,927	9,476,793	9,908,554	10,142,996	10,231,114
Fishes	8,300,940	8,106,566	8,412,014	8,798,344	8,821,127
Tunas, albacore	384,674	362,917	378,496	360,278	372,143
Marlins, swordfishes	46,627	43,357	44,120	47,455	44,479
Skipjack, frigate mackerel	384,621	346,518	376,739	305,491	320,106
Sharks, rays	50,048	51,976	54,170	46,378	44,974
Salmons, trouts	102,760	131,021	122,515	149,845	136,309
Herring	6,706	6,819	11,154	8,901	24,197
Sardine, round herring	1,687,953	1,866,495	2,236,160	3,125,377	3,324,749
Anchovy	152,428	134,577	150,606	160,467	197,453
Jack mackerel, scads	153,131	183,883	144,977	122,231	174,213
Mackerels	1,625,866	1,414,183	1,301,121	908,015	717,840
Saury	360,213	277,960	187,155	160 319	206,958
Yellowtails	37,414	44,970	42,009	37,774	38,443
Flounders, halibuts, soles	313,827	288,896	288,881	296,572	274,856
Cod	88,989	91,829	96,742	102,205	95,127
Alaska pollack	1,546,176	1,551,116	1,552,421	1,595,302	1,567,481
Atka mackerel	134,763	118,888	117,351	122,839	102,884
Rockfishes	43,972	50,374	43,180	38,479	29,213
Croakers	37,471	39,444	32,025	33,358	30,210
Hairtail	28,085	30,518	37,803	35,097	35,948
Sea breams	29,433	28,825	28,151	26,567	27,435
Spanish mackerel	7,500	6,140	7,045	6,181	5,744
Sand lance	99,078	110,484	201,226	162,448	126,658
Others	979,205	925,376	975,967	946,765	923,707
Crustaceans	140,035	132,930	128,064	130,275	149,406
Spiny lobster	1,000	1,064	1,065	1,061	1,153
"Kuruma" prawn	2,673	2,468	2,307	2,864	3,068
Other prawns, shrimps	56,003	49,129	47,133	50,123	54,843
King crab	130	270	56	26	142
Queen crab	22,902	23,476	21,314	12,484	9,786
Other crabs	57,327	56,523	56,189	63,717	80,414
Molluscs	932,378	938,307	1,070,601	923,864	944,941
Common squid	198,517	212,841	331,225	196,830	181,721
Other squids, cuttlefishes	321,231	315,990	355,386	319,670	368,717
Octopuses	65,441	51,986	46,105	52,236	43,206
Abalones	5,377	4,853	4,878	4,706	4,607
Short necked clams	153,767	132,641	127,386	137,114	139,380
Common scallop	59,664	79,734	83,134	91,139	99,505
"Mogai" clam	4,023	7,206	1,677	2,804	3,624
Other clams, shellfishes	124,359	133,056	120,810	119,365	104,181

BY SPECIES, 1978～1982

Unit: Metric tons

Species	1978	1979	1980	1981	1982
Echinodermata, etc.	145,638	111,434	113,907	122,521	110,423
Sea urchins	25,930	26,500	24,158	23,984	25,975
Sea cucumbers	10,143	9,381	8,970	8,098	8,437
Other marine animals	108,679	75,553	80,779	90,439	76,011
Marine mamals	1,899	1,062	1,283	1,472	1,495
Seaweeds	162,893	186,494	182,685	166,515	203,721
Kelps	108,911	131,546	124,816	112,178	145,952
"Wakame" seaweed	12,213	12,131	15,759	13,993	12,155
Agar-agar	11,374	11,177	9,861	8,988	9,088
Others	30,395	31,641	32,249	31,356	36,526
Marine Cultures	917,244	822,620	991,843	959,682	938,403
Yellowtails	121,728	154,872	149,311	150,754	146,304
Pearl	37	40	42	45	52
Oyster	232,069	205,509	261,323	235,241	250,288
Common scallop	67,723	43,614	40,399	59,095	76,866
"Nori" seaweed	350,471	325,686	357,672	340,510	263,312
"Wakame" seaweed	102,682	103,791	113,532	91,272	118,340
Others	42,534	49,108	69,564	82,763	83,241
Inland Water Fisheries	138,185	136,441	127,627	124,000	122,226
Salmons, trouts	6,151	8,652	11,527	11,092	11,613
Sweet fish	13,363	14,822	14,723	15,406	14,872
Common carp, crucian carp	18,127	18,804	18,545	17,246	16,649
Eel	2,068	1,923	1,936	1,920	1,927
Fresh water clams	52,423	51,075	43,093	40,589	39,113
Others	46,053	41,165	37,803	37,747	38,052
Inland Water Cultures	89,933	94,569	93,719	91,976	96,395
Trouts	19,029	18,464	19,972	20,234	20,689
Sweet fish	7,185	8,455	7,989	9,492	10,222
Common carp, crucian carp	30,452	28,715	26,196	25,073	25,308
Eel	32,106	36,781	36,618	33,984	36,642
Others	1,151	2,154	2,939	3,193	3,534
Whaling 2)	5,924	4,918	5,191	4,887	4,967
Blue whale	-	-		-	-
Fin whale	-	-		-	-
Humpback whale	-	-		-	-
Sei whale	516	227	307	485	482
Sperm whale	2,561	1,520	1,192	869	439
Mink whale	2,800	3,140	3,658	3,494	3,901
Bottlenose whale	36	-	31	39	60
Pilot whale	11	-	1	-	85
Others	-	31	2	-	-

Notes : 1) Excluding whales.

2) Actual number of catch.

I — 4 CATCH IN VALUE

Species	1978	1979	1980	1981	1982
Total	2,463,583	2,658,652	2,783,778	2,789,066	2,977,211
Marine Fisheries	1,891,406	2,055,936	2,133,627	2,152,458	2,312,861
Fishes	1,346,818	1,499,662	1,549,576	1,602,271	1,689,574
Tunas, albacore	252,448	336,479	333,837	329,561	362,772
Marlins, swordfishes	26,510	30,491	31,755	33,439	35,358
Skipjack, frigate mackerel	78,790	85,765	114,614	101,291	95,948
Sharks, rays	5,402	7,351	7,679	7,066	7,712
Salmons, trouts	121,991	116,709	104,367	124,555	127,113
Herring	1,856	2,015	3,158	2,712	2,668
Sardine, round herring	47,184	59,860	73,866	77,181	82,667
Anchovy	12,925	14,204	15,433	13,124	18,345
Jack mackerel, scads	48,405	58,671	54,026	58,559	66,237
Mackerels	57,905	69,784	82,075	94,215	89,872
Saury	35,591	19,542	19,918	28,271	59,064
Yellowtails	32,614	35,097	35,002	34,086	32,333
Flounders, halibuts, soles	96,290	104,368	107,848	112,859	120,634
Cod	18,315	17,657	18,855	19,062	19,185
Alaska pollack	124,040	125,899	124,866	117,114	117,392
Atka mackerel	6,134	6,702	8,555	8,718	10,462
Rockfishes	14,339	18,328	16,729	18,591	17,202
Croakers	7,719	8,347	7,650	7,847	7,223
Hairtail	6,450	8,442	11,849	11,062	10,632
Sea breams	48,405	50,215	49,843	45,388	47,861
Spanish mackerels	6,040	5,556	6,888	6,201	6,115
Sand lance	8,944	7,724	11,660	12,101	12,709
Others	281,244	310,456	309,103	339,268	340,070
Crustaceans	108,996	114,662	117,137	123,306	137,914
Spiny lobster	5,388	5,681	6,207	6,394	6,351
"Kuruma" prawn	11,294	10,650	11,062	12,848	14,907
Other prawns, shrimps	54,156	57,711	58,833	62,877	71,065
King crab	94	248	43	19	109
Queen crab	18,005	18,005	17,592	12,730	11,506
Other crabs	20,511	22,367	23,400	28,438	33,976
Molluscs	370,636	367,157	385,141	350,844	397,814
Common squid	122,313	120,351	119,724	88,924	106,153
Other squids, cuttlefishes	124,705	110,996	128,215	127,800	162,914
Octopuses	27,339	28,740	22,920	22,169	18,672
Abalones	18,082	16,981	19,991	17,757	18,142
Short necked clam	23,003	23,121	26,809	26,673	26,109
Common scallop	11,327	17,567	20,679	21,956	21,365
"Mogai" clam	736	1,112	293	515	800
Other clams, shellfishes	43,131	48,289	46,510	45,050	43,659

BY SPECIES, 1978～1982

Unit: Million yen

Species	1978	1979	1980	1981	1982
Echinodermata, etc.	36,120	40,095	40,177	42,412	45,257
Sea urchins	16,418	19,200	18,994	21,600	20,832
Sea cucumbers	4,470	5,167	5,106	5,098	5,211
Other marine animals	15,232	15,728	16,077	15,714	19,214
Marine mammals	302	129	260	212	256
Seaweeds	28,081	34,261	41,336	33,413	42,046
Kelps	19,752	25,009	30,450	23,779	31,502
"Wakame" seaweed	1,826	1,751	2,649	2,597	1,931
Agar-agar	2,009	2,292	1,686	1,467	1,371
Other	4,494	5,209	6,551	5,570	7,242
Marine Cultures	401,321	422,892	468,738	456,516	455,557
Yellowtails	116,484	132,318	139,553	150,222	146,401
Pearl	22,128	32,176	46,062	48,925	47,817
Oyster	24,694	23,138	28,462	27,215	29,768
Common scallop	16,040	11,274	11,938	17,184	20,823
"Nori" laver	166,950	157,694	152,874	121,718	106,654
"Wakame" seaweed	8,478	10,355	13,916	9,783	14,910
Others	46,547	55,937	75,933	81,469	89,184
Inland Water Fisheries	50,827	52,705	57,822	62,533	70,871
Salmons, trouts	3,540	4,001	5,448	5,800	6,949
Sweet fish	20,070	20,814	21,550	23,690	23,481
Common carp, crucian carp	6,111	6,392	7,049	6,524	7,055
Eel	2,816	3,076	2,103	1,490	1,859
Fresh water clams	6,924	6,634	6,459	9,699	11,043
Others	11,366	11,788	15,213	15,330	20,484
Inland Water Cultures	107,622	116,415	110,986	106,431	124,750
Trouts	11,743	14,347	17,636	14,165	14,297
Sweet fish	11,011	12,266	9,802	12,341	14,304
Common carp, crucian carp	14,197	12,664	10,758	10,648	11,901
Eel	66,748	71,465	63,605	58,996	73,213
Others	3,923	5,673	9,185	10,281	11,035
Whalings	12,409	10,704	12,605	11,128	13,172

I — 5 CATCH IN QUANTITY AND VALUE

Type of Fisheries	1978		1979	
	Q	V	Q	V
Total 1)	10,828,289	2,451,174	10,590,423	2,647,948
Marine Fisheries	9,682,927	1,890,954	9,476,793	2,055,936
Mother ship types				
Mother ship type trawl.....	555,706	52,219	542,780	45,457
Mother ship type salmon fishery..	15,399	16,992	15,449	15,191
Mother ship type crab fishery....	---	---	---	---
Mother ship type tuna long line..	---	---	---	---
Trawls				
Large trawls in N.Pacific Ocean..	622,496	71,318	595,962	81,617
Large trawl in Southern Ocean ...	261,004	65,749	222,848	49,231
Large trawl in East China Sea....	197,769	64,880	199,478	69,322
Shrimp trawl	2,720	4,896	3,105	7,676
Medium trawl (one boat operation)	824,829	89,387	853,704	102,162
(two boats operation)	59,980	18,193	59,320	19,101
Small trawls	339,240	141,206	355,119	154,240
Surrounding nets				
Large and medium surrounding net	2,449,046	113,613	2,397,823	160,187
(one boat operation).....	68,324	1,914	44,485	1,916
(two boats operation).....	499,552	42,248	548,292	48,588
Purse seine(one boat operation)..	269,333	21,608	258,564	21,632
(two boats operation).	10,540	4,385	5,494	2,969
Others				
Lift nets				
Saury stick held dip net	350,617	34,886	266,741	18,402
Others	140,809	15,105	136,093	15,163
Gill nets				
Salmon drift gill net	25,287	25,079	26,077	19,948
Others	344,758	107,551	349,748	113,421
Seine nets				
Beach seine	8,935	2,671	6,882	2,404
"Patchi" seine	110,599	16,449	88,838	17,629
Boat seine	131,963	42,934	123,524	39,228
Set nets				
Salmon large set net	49,754	63,334	69,977	65,986
Other large set net	180,626	46,186	184,774	51,519
Small set nets	144,661	46,520	146,751	48,160
Anglings				
Skipjack pole-and-line	231,703	54,127	197,870	57,854
on distant waters				
Skipjack pole-and-line	161,445	34,409	143,424	35,987
on offshore waters				
Skipjack pole-and-line	23,840	7,103	20,165	6,954
on coastal waters	28,548	1,255	6,713	1,423
Mackerel pole-and-line.....	4,658	683	3,310	529
Other mackerel anglings	363,670	170,328	333,850	165,845
Squid angling	90,649	59,013	89,660	63,021
Others				
Long lines				
Tuna long line on distant waters	2) 200,888	2) 160,563	2) 205,042	2) 220,799
Tuna long line on offshore waters	101,490	51,553	97,164	64,475
Tuna long line on coastal waters	23,313	11,336	24,312	14,706
Salmon long line	2,026	1,698	1,964	1,566
Others	96,587	43,083	93,949	46,601
Others				
N. Pacific Ocean tanner crab	3) 15,797	3) 8,820	3) 15,731	3) 9,061
fishery				
N. Pacific Ocean long line	24,338	6,365	29,664	8,932
and gill net	215,162	59,468	180,061	55,936
Shellfish collecting	159,589	26,700	183,272	33,380
Seaweed collecting	275,277	85,132	348,834	97,718
Other fisheries				
Marine Cultures	917,244	401,321	882,620	422,892
Inland Water Fisheries	138,185	50,912	136,441	52,705
Inland Water Cultures	89,933	107,622	94,569	116,415
Whalings				
Antarctic mother ship type	2,950	7,560	2,933	6,410
N. Pacific mother ship type.....	735	1,690	226	890
Coastal large type	1,792	2,790	1,321	2,770
Coastal small type	447	570	438	630

Notes: 1) Excluding whalings.

BY FISHERY TYPE, 1978～1982

Unit { Quantity: Metric tons
Value: Million yen

1980		1981		1982	
Q	V	Q	V	Q	V
11,121,846	2,771,173	11,318,653	2,777,938	11,388,138	2,964,039
9,908,554	2,133,627	10,142,996	2,152,458	10,231,114	2,312,861
553,678	42,282	542,087	41,380	516,862	47,814
15,441	14,681	15,445	13,989	15,429	16,492
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667,791	75,526	656,814	76,307	603,565	75,506
202,816	47,880	219,578	64,053	204,433	60,842
198,705	73,567	184,347	65,490	166,810	62,501
3,437	8,081	3,617	10,024	4,488	14,596
799,710	103,263	836,139	104,646	819,978	102,415
60,090	20,330	66,547	22,371	57,024	21,329
343,403	154,834	384,439	165,280	378,267	170,400
2,562,588	182,739	2,856,076	207,715	2,940,335	222,116
61,646	2,769	139,325	3,211	105,341	2,479
559,692	54,369	597,142	61,995	693,146	68,674
256,859	22,536	352,902	19,024	364,170	21,413
5,329	2,929	5,894	3,857	6,811	3,829
180,328	19,150	154,879	27,481	195,576	56,680
178,856	18,465	139,859	17,196	127,503	18,484
26,069	17,969	25,978	20,347	26,421	24,196
382,306	137,122	429,553	157,486	499,584	187,087
7,469	1,928	6,391	1,732	6,890	2,106
125,337	13,476	92,830	13,236	117,892	19,067
164,570	37,496	167,532	44,261	150,912	50,782
59,413	52,924	75,502	64,127	63,775	58,672
246,499	54,861	277,630	61,962	273,442	60,394
156,160	49,425	170,610	53,023	169,301	53,444
206,822	69,826	169,204	57,813	152,979	46,752
143,145	46,645	106,175	40,604	103,264	43,390
23,674	8,974	18,731	6,932	23,388	8,099
2,735	246	4,007	406	4,112	482
3,529	682	3,846	853	3,446	850
451,209	161,272	282,356	124,127	269,176	148,240
88,939	64,064	82,825	61,989	88,015	66,042
211,997	212,735	205,651	209,715	217,710	239,793
106,231	67,374	88,958	61,559	78,299	60,093
23,063	15,454	18,714	12,106	19,068	13,992
1,929	1,151	1,813	1,463	1,746	1,411
103,942	48,358	97,029	44,122	101,606	45,593
7,892	4,702	799	512	799	550
46,800	10,831	45,920	11,141	37,802	11,240
176,157	61,996	183,752	59,080	186,457	60,669
179,890	40,673	164,001	32,752	201,140	41,304
312,331	110,042	268,045	106,370	234,129	103,019
991,843	468,738	959,680	456,510	938,403	455,557
127,735	57,822	124,000	62,533	122,226	70,871
93,714	110,986	91,976	106,431	96,395	124,750
3,279	7,703	3,120	5,962	3,577	8,074
–	–	–	–	–	–
1,499	4,230	1,354	4,462	921	4,254
413	672	413	704	469	844

Notes: 2) Including mother ship type tuna long line
3) Including mother ship type crab fishery

I — 6 CATCHES OF MAJOR SPECIES

(1) Tunas, albacore

Unit: Metric tons

	1978	1979	1980	1981	1982
Total Catch	384,674	362,917	378,496	360,279	372,143
Tuna long line					
mother ship type	1) ...	...	...	...	...
in distant waters	166,844	168,656	175,280	165,783	179,078
in offshore waters	76,027	66,429	74,164	63,312	55,757
in coastal waters	16,852	17,435	16,417	13,811	14,481
Skipjack pole-and-line	80,159	58,927	65,209	44,778	48,597
Surrounding nets	24,827	30,934	32,979	52,051	54,392
Others	20,809	20,536	14,447	20,544	19,838

(2) Marlins, swordfishes

Total Catch	46,627	43,357	44,122	47,455	44,479
Tuna long line					
mother ship type	1) ...	...	...	...	...
in distant waters	23,269	24,465	23,359	26,964	27,688
in offshore waters	9,903	10,714	10,355	9,851	8,295
in coastal waters	2,236	2,220	2,329	1,834	1,891
Other gill nets	9,295	4,375	6,218	7,241	4,895
Others	1,924	1,583	1,861	1,565	1,710

(3) Skipjack

Total Catch	369,530	329,948	354,156	289,286	302,982
Skipjack pole-and-line					
in distant waters	172,428	153,609	166,068	148,704	128,882
in offshore waters	136,814	127,350	115,962	78,425	76,423
in coastal waters	17,673	16,922	13,538	10,556	12,841
Surrounding nets (one boat)	31,810	29,481	49,137	43,023	72,794
Surrounding nets (two boats)	287	106	175	–	1
Other anglings	7,280	7,715	6,476	3,843	6,717
Others	3,238	5,235	2,800	4,735	5,324

(4) Salmons, trouts

Total Catch	102,760	131,021	122,515	149,844	136,309
Mother ship type salmon fishery	15,399	15,449	15,441	15,445	15,429
Salmon drift gill net	25,287	26,077	26,069	25,978	26,421
Salmon large set net	45,198	65,992	52,197	71,485	58,968
Small set nets	6,901	9,879	9,690	12,476	11,158
Other long lines	2,266	2,001	2,860	2,910	3,250
Others	7,709	11,623	16,258	21,550	21,083

(5) Herring

Total Catch	6,708	6,819	11,154	8,901	24,197
Mother ship type trawl	281	14	15	–	–
Large trawl in Southern Ocean	2	–	–	–	–
Medium trawl(one boat)	3,174	3,823	9,585	8,006	22,459
Other gill nets	984	480	988	615	1,350
Others	2,267	2,502	566	280	388

Note : 1) Including mother ship type tuna long line.

BY FISHERY TYPE, 1978~1982

(6) Sardine, round herring

Unit: Metric tons

	1978	1979	1980	1981	1982
Total Catch	1,687,953	1,866,495	2,236,158	3,125,377	3,324,749
Surrounding nets (one boat)	1,247,384	1,448,395	1,677,905	2,369,434	2,585,512
Surrounding nets (two boats)	236,787	208,289	234,409	408,194	388,469
Other surrounding nets	639	88	342	548	883
Other lift nets	28,444	50,640	45,726	41,032	24,575
Set nets	103,069	114,194	179,277	232,454	222,298
Others	71,630	44,889	98,499	73,715	103,012

(7) Anchovy

Total Catch	152,428	134,577	150,606	160,467	197,453
Surrounding nets (one boat)	36,335	28,706	48,079	45,161	61,584
Surrounding nets (two boats)	39,242	31,789	37,288	42,655	46,043
Set nets	11,304	8,969	10,407	9,309	10,853
"Patchi" seine	33,453	33,332	22,784	32,685	34,022
Boat seine	22,238	24,404	25,750	25,404	37,117
Others	9,856	7,377	6,298	5,253	7,834

(8) Jack mackerel, scads

Total Catch	153,131	183,883	144,979	122,231	174,213
Surrounding nets (one boat)	126,125	159,689	118,984	98,137	144,859
Surrounding nets (two boats)	3,891	5,267	3,787	3,866	5,702
Other lift nets	8,275	4,835	8,585	4,326	5,382
Set nets	6,904	7,571	7,448	8,143	10,651
Others	7,936	6,521	6,175	7,759	7,619

(9) Mackerels

Total Catch	1,625,865	1,414,183	1,301,122	908,015	717,840
Surrounding nets (one boat)	1,404,489	1,150,945	1,092,895	744,037	617,639
Surrounding nets (two boats)	40,115	41,510	25,095	19,915	15,169
Mackerel pole-and-line	28,449	6,673	2,698	3,961	4,038
Set nets	27,565	24,527	26,830	23,195	19,919
Others	125,247	190,528	153,604	116,907	61,075

(10) Saury

Total Catch	360,213	277,960	187,155	160,319	206,958
Saury stick held dip net	350,532	266,652	180,250	154,789	195,484
Other gill nets	2,800	3,772	2,803	3,542	6,303
Set nets	5,041	7,262	4,055	1,945	4,327
Others	1,840	274	47	43	844

I — 6 CATCHES OF MAJOR SPECIES

(11) Yellowtails

Unit: Metric tons

	1978	1979	1980	1981	1982
Total Catch	37,414	44,970	42,009	37,774	38,443
Surrounding nets	5,423	10,677	10,008	6,623	5,424
Large set nets	13,264	12,545	10,236	11,678	12,813
Small set nets	5,078	5,191	5,188	4,468	4,979
Other gill nets	3,136	4,031	5,042	4,136	5,680
Other anglings	8,282	9,699	9,095	7,909	7,738
Others	2,231	2,827	2,440	2,960	1,809

(12) Flounders, halibuts, soles

Total Catch	313,830	288,896	288,881	296,572	274,856
Mother ship type trawl	57,059	56,739	58,707	67,304	59,522
Large trawls in N.Pacific Ocean..	105,790	89,086	89,700	87,188	78,051
Large trawl in East China Sea	15,638	15,213	16,836	15,915	14,772
Medium trawls	54,962	50,648	47,488	48,828	44,236
Small trawls	27,430	27,924	27,019	27,627	26,173
Other gill nets	39,394	35,401	35,800	36,871	39,958
Others	13,557	13,885	13,331	12,839	12,144

(13) Cod

Total Catch	89,016	91,829	96,742	102,205	95,127
Mother ship type trawl	16,617	14,766	9,939	10,555	7,467
Large trawls in N.Pacific Ocean..	27,643	19,005	19,319	19,502	12,722
Medium trawls	18,521	15,978	16,949	16,567	20,130
Other gill nets	8,280	11,089	11,904	17,886	20,711
Other long lines	3,607	13,810	3,377	2,367	1,399
Others	14,348	17,181	35,254	35,328	32,698

(14) Alaska pollack

Total Catch	1,546,176	1,551,116	1,552,421	1,595,302	1,567,481
Mother ship type trawl	475,244	464,803	479,734	452,815	441,308
Large trawls in N.Pacific Ocean..	394,015	396,681	463,846	462,972	449,913
Medium trawls	499,324	524,599	431,381	479,422	467,472
Other gill nets	115,832	120,441	107,421	129,416	135,649
Other long lines	44,656	33,466	54,369	50,191	55,338
Others	17,105	11,126	15,670	20,486	17,801

(15) Sea breams

Total Catch	29,433	28,825	28,151	26,567	27,435
Large trawl in Southern Ocean	–	–	–	–	–
Large trawl in East China Sea	4,720	5,006	4,657	4,393	4,599
Small trawls	3,171	2,783	2,926	2,561	3,058
Other gill nets	2,938	3,052	3,286	3,070	2,947
Boat seine	4,248	3,912	3,899	3,550	4,077
Other angling and long lines	9,441	9,717	8,786	8,447	8,778
Others	4,915	4,355	4,567	4,546	3,976

BY FISHERY TYPE, 1978~1982 (Continued)

(16) Sand lance

Unit: Metric tons

	1978	1979	1980	1981	1982
Total Catch	99,078	110,484	201,226	162,448	126,658
Medium trawls	28,807	36,661	55,050	75,701	53,941
Other lift nets	32,686	33,154	74,875	35,800	30,539
"Patchi" seine	6,454	3,960	9,637	2,715	1,452
Boat seine	26,469	28,658	51,586	38,791	31,591
Small set nets	2,333	2,755	1,532	1,101	1,330
Others	2,329	5,296	8,546	8,340	7,805

(17) Lobster, shrimps, prawns

Total Catch	53,427	59,676	50,505	54,048	59,064
Large trawls in N.Pacific Ocean	-	-	-	-	-
Shrimp trawl	2,901	2,720	3,320	3,525	4,394
Large trawl in East China Sea	4,191	4,510	2,460	1,108	3,144
Medium trawls	4,071	3,852	3,124	3,756	3,808
Small trawls	32,216	36,808	31,424	32,411	34,395
Other surrounding nets	99	3	0	0	0
Others	9,952	11,783	10,177	13,248	13,323

(18) Crabs

Total Catch	71,619	80,359	77,560	76,227	90,342
Mother ship type crab fishery	9,700	...	...	...	...
Medium trawls	4,280	3,985	3,497	3,452	3,213
Small trawls	5,668	6,277	5,592	6,868	7,185
Other gill nets	3,911	3,408	3,570	3,306	3,475
Other fishery (crab cages,etc.)	43,726	50,326	56,632	61,324	69,639
Others	4,334	1)16,363	8,269	1,277	6,830

(19) Squids, cuttlefishes

Total Catch	512,579	519,747	686,611	516,500	550,438
Large trawl in Southern Ocean	50,778	30,201	62,321	54,063	62,729
Large trawl in East China Sea	27,784	26,931	26,624	23,117	26,307
Medium trawls	29,628	19,311	28,114	23,124	20,933
Set nets	19,660	15,288	22,863	21,604	13,742
Squid angling	346,043	363,272	451,046	282,091	269,041
Others	38,686	64,744	95,643	112,501	157,686

(20) Octopuses

Total Catch	67,913	65,441	46,105	52,236	43,206
Large trawl in Southern Ocean	26,100	19,818	17	7,845	725
Medium trawls	2,445	2,727	3,062	2,565	3,240
Small trawls	8,078	9,828	9,128	10,405	10,513
Other long lines	4,925	7,205	6,934	5,775	5,522
Other fishery (octopus pots)	21,549	22,024	22,377	20,896	18,910
Others	4,816	3,839	4,587	4,750	4,296

Note : 1) Including mother ship type crab fishery.

I — 7 INDEX OF FISHERY PRODUCTION BY TYPE OF FISHERIES, 1978～1982 (1980=100)

Group	1978	1979	1980	1981	1982
Fisheries total	97.0	97.5	100.0	98.1	99.0
Marine fisheries and marine cultures	95.9	95.8	100.0	98.1	98.9
Distant water fisheries 1)	99.9	97.6	100.0	95.0	94.0
Offshore fisheries 2)	88.8	93.9	100.0	95.9	98.4
Coastal fisheries 3)	94.1	93.4	100.0	111.9	101.5
Marine cultures	88.3	93.4	100.0	103.5	99.6
Inland water fisheries and inland water cultures	92.9	100.8	100.0	98.7	102.1
Whalings	136.8	96.8	100.0	86.5	88.4

Notes : 1) This type of fisheries covers mother ship type fisheries, large trawl in Eastern China Sea, distant water trawls, tuna long line on distant water, skipjack pole-and-line on distant waters, North Pacific Ocean tanner crab fishing, North Pacific Ocean long line and gill net.

2) This type of fisheries covers fisheries operating with powered boat of more than 10 gross tonnage except for fisheries on distant waters, collecting shellfish, collecting seaweeds, set net and beach seine.

3) This type of fisheries covers fisheries operating without fishing boat, with non-powered boat, with powered boat less than 10 gross tonnage including collecting shellfish, collecting seaweeds, set net and beach seine.

4) The calculation method of the index is as follows:

(1) The items adopted amount to 120 commodities; 80 for marine fisheries, 14 for marine cultures, 4 for whaling, 15 for inland water fisheries, and 7 for inland water cultures.

(2) Formula

The index numbers are computed by the Laspeyres formula.

$$Q_{0t} = \frac{\Sigma W_0 (q_t / q_0)}{\Sigma W_0}$$

W_0 : Weights of the base period.

q_0 : Quantity of production in the base period.

q_t : Quantity of production in the current period.

(3) Weight

The weights were determined by the production value for 1979 and 1980 obtained by maltiplying quantity of production by price, and expressed as portions of 10,000.

I — 8 INDEX OF FISHERY PRODUCTION BY SPECIES, 1978～1982 (1980=100)

Item	1978	1979	1980	1981	1982
Marine Fisheries					
Bluefin tuna	91.0	89.4	100.0	118.2	89.3
Albacore	125.8	95.8	100.0	92.0	100.5
Bigeye tuna	103.6	105.9	100.0	89.7	107.0
Yellowfin tuna	82.3	83.7	100.0	92.4	96.0
Striped marlin	93.6	93.2	100.0	95.9	87.3
Brodbill swordfish	115.8	111.0	100.0	122.0	109.1
Skipjack	104.3	93.1	100.0	81.7	85.6
Sharks	98.7	100.4	100.0	87.4	82.7
Salmons	82.5	105.2	100.0	122.7	113.4
Trouts	89.1	114.6	100.0	120.5	102.1
Herring	60.5	61.1	100.0	79.8	216.9
Sardine	74.5	79.2	100.0	140.6	149.7
Anchovy	101.3	89.4	100.0	106.5	131.1
Jack mackerel	108.0	153.6	100.0	115.2	195.9
Mackerels	124.9	114.6	100.0	69.8	55.2
Saury	192.4	148.4	100.0	85.7	110.6
Yellowtail	89.1	107.1	100.0	89.9	91.5
Flounders, soles	108.8	100.1	100.0	103.0	95.3
Cod	92.1	95.0	100.0	105.6	98.3
Alaska pollack	99.5	99.8	100.0	102.8	100.9
Red sea bream	110.7	115.7	100.0	90.4	98.6
Sand lance	49.2	54.9	100.0	80.7	62.9
King crab	229.0	477.4	100.0	46.4	253.6
Common squid	77.5	85.2	100.0	59.4	54.9
Octopuses	142.1	112.8	100.0	113.3	93.7
Sea urchins	107.3	109.7	100.0	99.3	107.5
Sea cucumbers	113.1	104.6	100.0	90.3	94.0
Abalone	110.2	99.4	100.0	96.5	94.4
Kelp	87.2	105.4	100.0	89.9	116.9
Marine Cultures					
Yellowtail	81.5	103.7	100.0	101.0	98.0
"Kuruma" prawn	76.6	95.7	100.0	107.8	129.4
Oyster	88.8	78.7	100.0	90.0	95.8
Common scallop	167.7	108.0	100.0	146.3	190.3
"Nori" laver	98.5	91.9	100.0	99.5	77.5
"Wakame" seaweed	90.5	88.4	100.0	80.4	104.2
Inland Water Fisheries					
Salmons	43.1	66.6	100.0	91.7	98.9
Pond smelt	95.8	104.6	100.0	95.2	106.5
Sweet fish	90.8	100.7	100.0	104.6	101.1
Common carp	87.0	92.7	100.0	95.6	96.8
Crucian carp	106.8	108.7	100.0	91.4	83.9
Inland Water Cultures					
Rainbow trout, etc.	95.3	92.5	100.0	101.3	103.6
Sweet fish	89.9	105.8	100.0	118.8	128.0
Common carp	116.5	109.7	100.0	95.0	96.2
Eel	87.6	100.5	100.0	92.8	100.1

Ⅱ STRUCTURE OF FISHERY PRODUCTION

Ⅱ－1 NUMBER OF MARINE FISHERIES ESTABLISHMENTS, 1978～1982

Unit : Number

Type and size of management	1978	1979	1980	1981	1982
Grand Total	217,734	219,112	216,433	214,056	212,137
Without fishing boat	10,471	9,051	8,481	8,406	8,309
With non-powered boats	2,964	1,636	1,357	1,141	1,079
With powered boats					
Sub-total	147,751	150,438	149,087	148,071	147,796
Less than 3 G.T.	92,440	93,327	91,260	89,656	88,521
3 - 5	33,384	33,998	34,366	34,703	35,603
5 - 10	10,989	11,495	11,865	12,137	12,202
10 - 30	6,432	7,046	7,125	7,194	7,309
30 - 100	2,808	2,827	2,757	2,711	2,565
100 - 200	645	675	658	641	606
200 - 500	545	547	536	522	504
500 - 1,000	300	308	298	295	282
1,000 G.T. and over	208	215	222	212	204
Set nets and beach seine					
Sub-total	8,135	8,381	8,495	8,383	8,358
Large set nets	1,217	1,113	1,160	1,175	1,179
Small set nets	6,263	6,729	6,789	6,721	6,729
Beach seine	655	539	546	487	450
Culture					
Sub-total	48,413	49,606	49,013	48,055	46,595
Laver culture	24,913	24,882	24,162	22,857	21,196
Oyster culture	3,924	4,121	4,293	4,269	4,232
Pearl culture	1,755	1,783	1,794	1,803	1,840
Wakame seaweed culture ...	6,870	7,203	7,095	7,113	7,069
Yellowtail culture	3,473	3,560	3,457	3,399	3,287
Common scallop culture ...	3,496	3,482	3,191	3,284	3,378
Other cultures	3,982	4,575	5,021	5,330	5,593

Note : Excluding the number of fisheries establishments which engaged in fishing for less than 30 days in a year.

Ⅱ－2 NUMBER OF MARINE FISHERY WORKERS, 1978～1982

Unit : Thousand men

	1978	1979	1980	1981	1982
Grand Total	478.1	467.8	457.4	449.0	437.2
Men	398.0	387.3	376.9	367.8	357.2
15 - 39 years old	134.5	125.4	118.2	111.1	103.8
40 - 59 years old	199.6	197.2	193.6	191.1	188.2
60 years old and over	63.9	64.7	65.1	65.5	65.2
Women	80.1	80.5	80.5	81.2	80.0

Ⅱ－3 NUMBER OF FISHING BOATS, 1978～1982

Unit : Number

Size	1978	1979	1980	1981	1982
Total	435,784	444,413	449,847	445,060	445,116
Marine	412,423	423,820	428,854	424,207	424,582
Non-powered	29,866	28,402	27,504	25,767	24,143
Powered	382,557	395,418	401,350	398,440	400,439
Less than 5 G.T.	349,044	359,984	364,867	361,780	363,875
5 - 9	14,138	15,211	15,896	16,196	16,248
10 - 49	12,171	12,924	13,190	13,244	13,364
50 - 99	3,916	3,911	3,943	3,823	3,640
100 - 199	1,398	1,453	1,450	1,415	1,382
200 - 499	1,647	1,689	1,758	1,749	1,693
500 - 999	76	72	71	63	54
1,000 G.T. and over	167	174	175	170	183
Inland Water	23,361	20,593	20,993	20,853	20,534
Non-powered	7,324	6,319	5,277	5,640	5,867
Powered	16,037	14,274	15,716	15,213	14,667
Less than 5 G.T.	16,025	14,274	15,707	15,203	14,652
5 G.T. and over	12	-	9	10	15
Number of F.R.P. Boats in Marine Total	142,729	168,493	191,556	210,142	225,585
Less than 1 G.T.	48,766	54,994	63,644	65,221	70,252
1 - 3	57,450	69,025	80,585	89,085	95,715
3 - 5	27,522	32,877	37,120	40,635	43,202
5 - 10	5,350	6,938	7,947	9,102	9,799
10 - 20	3,268	4,215	4,762	5,507	5,977
20 G.T. and over	373	444	490	592	640

Ⅱ－4 GROSS TONNAGES OF FISHING BOATS, 1978～1982

Unit : G. t.

Size	1978	1979	1980	1981	1982
Total	2,687,825	2,790,159	2,833,684	2,806,689	2,815,494
Marine	2,668,772	2,775,048	2,815,194	2,787,955	2,796,869
Non-powered	27,128	25,250	24,153	23,186	21,996
Powered	2,641,644	2,749,797	2,791,041	2,764,769	2,774,873
Less than 5 G.T.	599,754	627,970	639,939	645,676	654,912
5 - 9	111,423	120,022	125,524	128,458	129,840
10 - 49	239,636	250,153	252,374	250,645	249,662
50 - 99	305,447	304,334	305,776	295,164	279,258
100 - 199	199,491	207,358	205,635	202,151	197,764
200 - 499	544,401	560,814	584,007	583,506	566,977
500 - 999	58,869	56,070	55,189	48,621	42,671
1,000 G.T. and over	582,624	623,073	622,598	610,547	653,790
Inland Water	19,052	15,111	18,490	18,734	18,626
Non-powered	3,710	3,381	2,681	3,092	3,024
Powered	15,342	11,729	15,809	15,642	15,602
Less than 5 G.T.	15,252	11,729	15,742	15,567	15,493
5 G.T. and over	90	-	67	75	109
Gross Tonnages of F.R.P. Boats in Marine Total	362,860	445,406	506,363	564,917	608,030
Less than 1 G.T.	34,814	39,718	45,709	47,503	50,981
1 - 3	95,199	117,735	135,535	150,192	162,755
3 - 5	119,981	143,719	161,905	177,502	188,338
5 - 10	42,467	55,554	63,423	73,014	78,971
10 - 20	50,203	64,744	73,464	84,753	92,045
20 G.T. and over	20,197	23,932	26,326	31,951	34,939

III MARKETING OF FISHERY PRODUCT

III – 1 QUANTITY AND PRICE OF LANDINGS BY COMMODITY AT FISH MARKETS IN PRODUCING AREAS, 1982

Commodity	Quantity of landings	Price
Total of fishes, other marine animals, marine mammals and whales	5,866,194	165
Bluefin tuna		
Fresh	19,620	1,067
Frozen, round type	18,494	2,980
Frozen, fillet type	169	2,278
Albacore		
Fresh	28,281	482
Frozen, round type	39,359	401
Frozen, fillet type	12	-
Bigeye tuna		
Fresh	11,863	1,348
Frozen, round type	81,656	933
Frozen, fillet type	30	816
Yellowfin tune		
Fresh	18,447	812
Frozen, round type	68,694	474
Frozen, fillet type	12	564
Other tunas		
Fresh	9,898	538
Frozen	5,886	318
Striped marlin		
Fresh	2,408	897
Frozen, round type	6,351	866
Frozen, fillet type	58	828
Broadbill swordfish		
Fresh	6,170	757
Frozen, round type	1,261	803
Frozen, fillet type	5,825	908
Black marlins		
Fresh	2,547	670
Frozen, round type	8,328	610
Frozen, fillet type	63	427
Other swordfish, marlins and sailfish		
Fresh	1,509	838
Frozen, round type	946	407
Frozen, fillet type	181	433
Skipjack		
Fresh	70,167	335
Frozen	169,473	235
Salmons		
Fresh	20,441	923
Frozen	8,039	1,250
Salted	13,080	1,490
Salmons (Pink and cherry salmons)		
Fresh	5,272	757
Frozen	3,321	839
Salted	2,240	707
Sardine	2,293,143	20
Round herring	14,969	91
Jack mackerel	63,839	410
Scads	53,917	203
Mackerels	520,466	119
Saury	151,518	300
Common squid		
Fresh	43,051	573
Frozen	114,713	459
Bastard halibut	5,992	1,373
Flounders, soles		
Fresh	62,361	399
Frozen	54,499	381
Cod		
Fresh	38,773	158
Frozen	30,527	279
Alaska pollack		
Fresh	696,066	61
Frozen	16,966	122
Atka mackerel	62,544	89
"Menuke" Rockfishes		
Fresh	2,289	869
Frozen	8,463	531
"Kichiji" Rockfishes	6,106	840
Sand fish	5,198	397
Deep sea smelts	4,361	180
Sharks		
Fresh	24,980	169
Frozen	2,932	317
Yellow croaker	1,169	111
Other croakers	24,804	211
Lizard fishes	12,876	144
Butter fish	3,458	862
Sharp toothed eel	13,726	323
Hairtail	20,909	171
Gurnards	1,729	341
Skates and rays	8,755	127
Rod sea bream	5,219	1,590
Crimson sea bream	645	1,408
Yellow sea bream	8,027	978
Black sea bream	348	1,150
Other sea breams		
Frozen	8,153	1,166
Yellowtails	21,460	823
Spanish mackerels		
Fresh	14,940	449
Frozen	3,903	469

Notes: 1) The quantity of landings is of the 67 fishing ports in the producing areas.
2) The prices here show the average prices per Kg, which are obtained by dividing the value of landings by the quantities of landings.

Unit { Quantity: Metric tons / Price: yen per Kg

Commodity	Quantity of landings	Price
Dolphin fishes	7,638	223
Flying fishes	863	406
Frigate mackerel	7,823	221
Mallets	509	362
Common sea bass	529	1,279
Herring		
Fresh	17,934	95
Frozen	-	-
Sand lance	75,148	89
Anchovy	19,814	75
Post larval	2,657	330
Other fishes		
Fresh	288,795	271
Frozen	64,031	538
Salted	3,552	1,387
Cuttlefishes		
Fresh	5,850	388
Frozen	174	-
Other squids and cuttlefishes	208,403	847
Octopuses		
Fresh	10,767	268
Frozen	469	202
Spiny lobster	87	5,225
"Kuruma" prawn	230	3,121
Other lobster, prawn and shrimps		
Fresh	6,809	1,012
Frozen	1,678	2,253
King crab	10	1,202
Tanner crab	2,612	1,694
Blue crabs	679	733
Other crabs	53,446	221
Sea urchins		
With shells	219	1,204
Shelled	318	7,966
Sea cucumbers	726	632
Other marine animals		
Fresh	20,069	117
Frozen	-	-
Marine mammals	224	99
Whale (by whaling)		
Fresh	-	-
Frozen	6,238	-
Salted	-	-

Commodity	Quantity of landings	Price
Total of shellfishes		
With shell	25,614	315
Shelled	2,103	804
Abalones with shell	245	3,274
Top shell with shell	565	1,157
Hard clams		
With shell	1	644
Short-necked clams		
With shell	561	246
Common scallop		
With shell	18,191	247
Shelled	755	747
Hen clams		
With shell	287	775
Shelled	78	2,903
"Mogai" clam		
With shell	-	-
Shelled	-	-
Oyster		
With shell	660	501
Shelled	974	597
Other shellfishes		
With shell	5,103	323
Shelled	297	709
Total of seaweeds		
Fresh	830	339
Dried	2,353	1,026
"Kombu" tangle		
Dried	2,263	1,016
"Wakame" seaweed		
Fresh	315	123
Dried	18	2,915
"Tengusa" agar-agars		
Fresh	2	-
Drid	4	483
"Funori" seaweek		
Fresh	7	1,175
Dried	0	1,729
Other seaweeds		
Fresh	506	469
Dried	68	1,005
Total of dried laver 1)	10,633	140
"Kuronori" laver 1)	10,633	140
"Mazenori" laver 1)	-	-
"Aonori" laver 1)	-	-

Note: 1) Quantity is expressed in unit of 10,000 sheets and price 10 sheets

Ⅲ — 2 QUANTITY AND PRICE OF ARRIVALS BY COMMODITY AT TOKYO CENTRAL WHOLESALE MARKETS, 1982

Unit { Quantity: Metric tons
Price: yen per Kg

Commodity	Quantity of arrivals	Price
Fresh		
Marine fishes	166,197	964
Bluefin tuna	5,599	1,869
Albacore	303	561
Bigeye tuna	1,819	2,331
Yellowfin tuna	1,741	1,300
Other tunas	1,674	943
Striped marlin	420	1,375
Broadbill swordfish	764	969
Blue marlins	280	679
Other marline	20	555
Skipjacks	9,377	644
Salmons	2,326	984
Salmons (Pink and cherry salmons)	319	1,086
Sardine	8,983	175
Round herring	101	415
Jack mackerel	14,570	780
Mackerels	9,428	372
Saury	6,434	860
Common squid	8,681	783
Bastard halibut	1,040	1,914
Flat fishes	8,156	875
Cod	3,611	373
Atka mackerel	948	138
Rock fishes	1,819	1,195
Sharks	2,021	322
Yellow croaker	–	–
Other croakers	1,078	448
Sharp toothed eel	208	1,006
Hairtail	1,100	637
Red sea bream	1,452	1,762
Crimson sea bream	271	2,168
Yellow sea bream	48	1,197
Yellowtail	18,500	1,090
Fishery	5,363	965
Culture	13,137	1,141
Spanish mackerels	1,841	867
Flying fishes	1,253	521
Common sea bass	310	1,317
Other fishes	36,452	983
Cuttlefish	1,445	1,008
Other squids and cuttlefishes	2,570	772
Octopuses	768	553
Spiny lobstor	99	5,859
"Kurumaebi" prawn	103	5,673
"Taisho ebi" prawn	301	2,151
Other shrimps	3,313	2,456
Crabs	2,486	1,164
Other marine animals	2,165	4,243
Inland water fishes	4,373	1,460

Commodity	Quantity of arrivals	Price
Shellfishes	57,074	767
Abalones with shell	1,108	3,825
Short necked clam with shell	10,730	284
Oyster shelled	5,104	953
Freshwater clam with shell	4,649	251
Other shellfishes	35,483	859
Frozen		
Bluefin tuna	12,567	2,982
Albacore	4,503	486
Bigeye tuna	41,514	1,216
Yellowfin tuna	6,849	858
Other tunas	–	–
Striped marlin	3,354	1,148
Bradbill swordfish	6,219	1,102
Blue marlins	857	645
Other marlins	–	–
Skipjack	721	530
Salmons	22,226	1,185
Salmons (Pink and cherry salmons)	3,591	788
Jack mackerel	5,666	379
Mackerels	8,646	263
Saury	2,901	637
Common squid	17,833	547
Flat fishes	11,919	533
Cod	6,126	317
Rock fishes	2,872	595
Sea breams	5,623	496
Spanish mackerels	2,392	532
Herring	3,844	401
Other fishes	50,315	519
"Mongo-ika" cuttlefish ...	12,461	1,011
Other cuttlefishes	14,317	548
Octopuses	16,756	442
"Taisho ebi" prawn	356	2,625
Meat of whale		
Fresh	464	1,404
Frozen	2,065	993
Processed fishery product		
Salted and dried		
Sardine, round herring ..	10,066	286
Jack mackerel, scad	12,268	633
Mackerels	2,980	334
Saury	6,164	435
Salted		
Salmons	26,991	1,189
Salmons(Pink and cherry salmons)	1,970	856
Mackerels	205	489
Other salted product	24,744	2,353
Processed whale products .	647	1,647
Seaweeds	6,333	333
Other processed fishers products	210,822	639

Note: The prices here show the average price which are obtained by dividing the value of arrivals by the quantities of arrivals.

Ⅲ — 3 PRICES OF MAJOR FISHERY PRODUCTS BY STEPS OF DISTRIBUTION IN TOKYO, 1982

Unit : Yen per kg

commodity		Wholesale price	Broker price	Retail price	Ratio of retail price to wholesale price
Bigeye tuna 1)	frozen	1,190	1,757	4,774	401
Yellowfin tuna 1)	frozen				
Skipjack tuna 1)	fresh	683	928	1,656	242
Chum salmon 1)	salted	1,288	1,452	2,152	167
Sardine (Round fish)	fresh	207	277	474	229
Jack mackerel (Round fish)	fresh	1,199	1,576	2,039	170
Mackerel (Round fish)	fresh	407	500	687	169
	frozen	-	-	-	-
Saury (Round fish)	fresh	1,054	1,333	1,800	171
	frozen	-	-	-	-
Yellowtails 1)	fishery				
	cultured	1,176	1,274	3,416	290
Common squid (Round fish)	fresh	883	1,023	1,309	148
	frozen				
Oyster (Without shell)	fresh	1,085	1,311	2,183	201

Note : 1) Round fish for wholesale and broker price and sliced meat for retail price.

Ⅲ — 4 PROCESSED FISHERY

Proceseed products 1)	1978	1979	1980	1981	1982
Boiled and dried	82.4	98.0	97.9	93.2	102.3
Anchovies	63.2	78.4	79.6	73.7	82.9
Jack mackerel	1.7	1.1	0.6	-	-
Sand lance	7.7	9.1	9.1	9.1	9.7
Others	9.8	11.1	8.6	10.4	9.7
Cured	130.7	126.5	124.6	113.6	118.9
Mackerels	28.9	31.0	27.9	22.5	19.9
Skipjack	38.2	32.4	32.0	29.6	35.4
Others	63.6	63.1	64.7	61.5	63.6
Dried	37.5	30.6	32.7	34.8	37.1
Herring	18.9	14.4	12.1	14.8	17.3
Squids	7.6	5.9	11.5	11.6	9.4
Others	11.0	10.3	9.1	8.4	10.4
Dressed frozen	116.1	145.5	153.1	186.5	211.1
Frozen	3,153.2	3,171.6	3,134.2	3,622.4	3,873.0
Albacore, tunas	210.2	202.1	212.4	193.1	234.4
Cod, Alaska pollack	114.2	101.0	128.7	204.2	256.8
Halibut, flounders	136.2	112.3	113.0	108.8	122.5
Mackerels	518.3	574.8	508.3	319.3	272.0
Marlins	22.9	23.5	22.7	26.7	31.4
Sardines, anchovies	434.1	475.2	515.0	1,053.7	1,222.1
Saury	281.7	230.6	150.3	141.8	174.3
Skipjack	164.1	148.7	167.4	142.5	129.8
Squids, cuttlefishes	254.3	251.5	282.9	313.5	379.1
Whales	18.2	15.4	15.7	14.2	19.0
Minced fish meats	365.6	367.6	364.2	354.9	373.0
Others	633.4	668.9	653.6	749.7	658.6
Kneaded	1,037.2	976.2	911.1	948.9	960.9
"Chikuwa" 2)	190.9	177.2	174.4	180.7	187.7
Fish sausage	107.2	106.8	87.4	91.9	95.2
"Kamaboko" 3)	427.1	402.4	362.1	359.6	352.1
Others	312.0	289.8	287.2	316.7	325.9
Manure and feed	951.4	962.6	952.5	992.8	1,094.0
Fish meal	497.4	560.0	517.5	514.0	567.7
Dried press cake	299.9	238.5	254.4	290.8	320.3
Others	154.1	164.1	180.6	188.0	206.0
Oil and fat	243.5	253.4	263.1	279.1	313.1
Fish oil, fish viscera oil	230.7	245.8	255.9	277.3	308.4
Whale oil	12.8	7.6	7.2	5.8	4.7
Salted	242.7	250.9	255.7	284.1	290.8
Alaska pollack roe, cod roe	23.0	25.0	32.2	41.8	41.9
Cod, Alaska pollack	19.0	18.4	18.6	19.1	23.4
Herring roe, salmon roe	12.5	10.4	11.9	13.9	15.0
Mackerels	75.1	62.0	63.4	59.1	37.5
Salmons	61.7	78.2	79.9	93.5	108.3
Trouts	11.0	17.5	17.5	21.3	22.3
Others	40.4	39.4	32.2	35.4	42.4

PRODUCTS, 1978～1982

Unit { Thousand metric tons / Canned: ton

Processed products	1978	1979	1980	1981	1982
Salted and dried	246.0	255.3	275.5	260.2	270.9
Jack mackerel	50.2	52.4	51.9	47.0	49.1
Mackerels	28.6	30.0	30.2	27.4	23.2
Sardines, anchovies	74.8	71.0	77.3	68.4	69.2
Saury	28.1	32.2	35.2	34.2	36.0
Others	64.3	69.7	80.9	83.2	93.4
Smoked	12.1	11.3	10.6	11.7	12.0
Salmons, trouts	1.4	1.7	1.7	1.9	2.5
Squids, cuttlefishes	3.8	4.0	3.8	5.5	4.7
Whale meat	1.1	1.1	0.9	0.4	1.2
Others	5.8	4.5	4.2	3.9	3.6
Others	352.2	351.4	337.5	338.8	352.3
Canned 4)					
Total	406,305	397,532	448,415	425,771	399.275
(Actual number of thou. cases)	(37,442)	(36,688)	(41,838)	(41,398)	(40,044)
Shellfish	11,248	12,171	12,521	10,528	12,183
Crabs	2,849	3,363	4,785	4,555	3,961
Jack mackerel	-	-	-	-	-
Mackerels	222,138	203,803	235,932	169,648	126,462
Prawns rimps	32	53	71	56	33
Salmons, trouts	1,656	4,814	8,284	9,487	6,694
Sardines, anchovies	51,134	53,957	67,575	92,276	108,626
Saury	10,629	8,043	7,306	10,290	9,554
Squids, cuttlefishes	3,635	3,340	4,041	3,955	3,308
Tunas, skipjack	87,563	95,130	94,520	111,042	113,071
Whale	9,677	7,620	7,833	8,261	10,037
Others	5,744	5,238	5,548	5,673	5,346

Notes : 1) Excluding dried seaweeds.

2) Baked products of kneaded fish meat with seasonings.

3) Steamed products of kneaded fish meat with seasonings.

4) Surveyed by the Canners Association of Japan.

Ⅲ－5 VALUE OF IMPORTS AND EXPORTS

Imports

Year	Total	Live	Fresh and frozen			Salted dried and smoked
			Shrimps	Skipjack, tunas and marlins	Others	
1970	114,628	5,851	49,329	9,070	18,698	12,478
1971	153,345	7,779	73,335	11,538	32,832	13,838
1972	190,338	12,418	89,918	10,422	36,754	22,878
1973	300,074	17,752	118,207	14,171	71,137	40,052
1974	323,240	19,862	117,571	21,684	90,242	42,059
1975	384,529	24,862	137,517	39,527	107,412	35,166
1976	563,649	30,680	223,128	46,206	150,745	58,279
1977	657,714	32,437	219,509	68,205	191,668	63,167
1978	676,455	32,132	222,528	46,963	238,577	78,434
1979	930,764	29,126	313,168	69,552	331,739	111,625
1980	764,319	32,023	248,866	59,158	267,176	59,969
1981	879,881	32,022	279,642	70,113	330,894	80,361
1982	1,046,745	27,442	341,217	85,589	410,399	87,873

Exports

Year	Total	Fresh and Frozen		Salted,dried and smoked		
		Skipjack, tunas and marlins	Others		Jack mackerel and mackerels	Salmons
1970	140,717	13,983	21,573	4,248	19,573	16,181
1971	146,662	13,794	25,487	4,230	23,140	18,796
1972	162,179	17,752	36,629	4,513	23,286	17,196
1973	173,494	21,632	44,688	4,745	26,259	10,419
1974	201,965	24,331	42,714	5,398	35,554	12,993
1975	168,696	3,289	38,357	5,783	35,732	15,102
1976	220,833	13,958	49,288	5,942	34,477	17,625
1977	184,180	12,906	37,389	5,877	44,423	3,723
1978	171,250	13,849	30,654	5,736	35,406	3,144
1979	196,363	10,957	35,175	6,723	35,442	139
1980	265,314	25,064	36,237	8,370	52,830	126
1981	253,830	12,791	34,234	9,897	43,740	1,343
1982	262,830	11,224	38,559	13,377	33,140	107

BY COMMODITY, 1970～1982

Unit: Million yen

Raw agar-agar	Fish meals	Pearls	Oil and fat	Prepared	Dried laver	Others
772	6,689	1,474	229	3,561	3,099	3,378
610	1,414	1,315	356	5,721	1,337	3,272
775	3,266	1,550	351	7,384	768	3,854
1,309	8,738	2,175	445	14,784	2,958	6,339
2,142	3,404	2,158	569	18,934	59	6,563
1,748	5,856	3,147	904	22,884	221	6,285
2,153	5,485	4,871	665	30,660	42	10,735
1,596	24,827	6,079	452	32,182	264	12,328
1,759	9,341	7,839	1,252	28,042	-	9,588
2,386	9,773	8,996	1,371	38,717	-	14,311
3,700	17,251	13,828	1,523	41,791	-	19,034
2,368	10,662	13,926	1,483	40,976	-	17,434
2,942	4,937	11,731	1,271	53,751	-	19,593

Unit: Million yen

Canned				Oil and fat		Pearls	Others
Sardines and anchovies	Tunas	Crabs	Others	Whale oil	Others		
79	28,862	2,929	5,552	2,597	1,307	14,725	9,110
99	23,016	3,966	5,218	4,681	2,431	12,599	9,205
338	27,091	1,724	5,875	1,555	1,893	14,189	10,138
712	24,440	315	5,072	1,693	3,048	17,867	12,604
834	29,119	644	5,627	3,930	11,268	17,484	12,069
1,343	27,664	454	3,646	1,959	5,481	17,679	12,207
7,536	35,932	890	4,367	1,447	7,696	22,920	19,355
8,227	25,626	581	3,784	1,412	12,059	10,296	17,877
7,951	25,007	62	3,654	522	17,665	8,818	18,782
10,164	26,536	25	3,233	-	15,910	32,090	19,969
13,179	35,461	59	3,450	-	13,809	51,392	25,337
21,168	31,989	70	2,832	-	13,873	54,285	27,608
26,145	29,287	157	3,043	-	13,028	51,746	43,017

Ⅲ－6 VALUE OF IMPORTS AND

Imports

Year	Total	U. S. A.	Republic of Korea	Taiwan	Canada	Indonesia	India
		1	2	3	4	5	6
1970	114,628	8,700	14,203	9,151	1,846	3,791	5,317
1971	153,345	10,236	17,327	13,324	3,396	8,336	8,601
1972	190,338	7,570	24,623	17,322	7,310	14,992	12,358
1973	300,074	24,243	42,273	25,338	17,401	22,235	17,750
1974	323,240	16,326	62,763	28,746	14,167	24,504	17,391
1975	385,529	21,768	85,639	44,186	13,363	29,513	27,847
1976	563,649	28,441	115,752	54,625	27,547	48,431	40,984
1977	657,714	62,310	129,344	67,545	44,879	48,802	35,229
1978	670,455	104,710	100,497	66,459	53,974	47,024	36,340
1979	930,764	143,769	132,817	80,065	59,620	60,345	55,978
1980	764,319	98,963	116,568	79,868	29,214	54,101	44,436
1981	879,881	147,228	133,037	84,206	41,081	49,409	54,439
1982	1,046,745	176,678	153,770	94,883	62,784	62,469	71,520

Exports

Year	Total	U. S. A.	Netherlands	Nigeria	Taiwan	Hong Kong	Papua New Guinea
		1	2	3	4	5	6
1970	140,717	41,951	4,982	34	1,830	4,123	1,177
1971	146,662	40,107	6,985	134	2,071	3,011	1,356
1972	162,179	59,753	4,992	507	2,996	4,053	1,478
1973	173,494	61,664	4,088	386	5,939	4,662	2,325
1974	201,965	62,373	14,400	1,176	5,841	4,378	3,157
1975	168,696	38,142	9,935	3,851	8,363	5,290	2,697
1976	220.833	57,042	11,972	4,718	11,969	7,403	4,623
1977	184,180	39,447	14,171	11,117	9,500	7,636	4,709
1978	171,250	33,574	18,813	14,785	11,266	7,833	6,368
1979	196,363	36,122	15,076	12,158	11,723	10,539	4,693
1980	265,314	54,175	12,126	16,287	9,862	17,559	5,789
1981	253,830	49,136	11,149	21,997	10,381	15,290	7,747
1982	262,830	60,938	7,621	17,483	19,327	19,003	5,853

EXPORTS BY COUNTRY, 1970～1982

Unit: Million yen

China	Spain	Australia	Thailand	Hong Kong	Mexico	U. S. S. R.	Malaysia	Others
7	8	9	10	11	12	13	14	15
10,815	2,519	5,779	5,651	3,819	7,355	3,238	2,766	29,678
11,049	9,332	7,206	7,902	5,651	7,856	2,936	5,063	35,130
15,261	8,763	8,516	10,295	5,485	7,102	2,481	6,158	42,102
20,824	9,444	10,795	14,082	5,879	12,323	6,067	8,122	63,298
29,020	17,872	11,179	12,901	7,069	7,075	10,307	5,827	58,093
22,651	19,655	11,235	20,934	8,743	7,891	8,383	6,236	57,385
24,750	27,844	21,160	28,846	15,257	13,516	10,947	15,122	90,427
19,962	19,754	25,496	23,733	18,981	10,213	14,662	15,647	121,157
32,489	24,701	24,328	24,305	16,530	14,877	13,978	11,537	104,706
43,252	43,260	41,503	38,447	19,116	12,642	16,241	18,864	164,845
49,433	38,410	28,391	29,034	14,710	8,955	15,946	10,488	145,802
48,999	32,100	42,057	35,912	15,679	8,254	16,789	11,857	158,834
41,505	28,324	46,188	45,945	15,643	12,805	18,932	12,693	202,606

Unit: Million yen

Canada	United Kingdom	Australia	Singapore	Saudi Arabia	Philippines	S. Africa	Switzerland	Others
7	8	9	10	11	12	13	14	15
3,932	16,835	5,322	5,220	192	5,760	1,311	3,735	39,247
4,833	15,761	4,971	2,834	146	6,549	1,428	3,507	47,216
5,963	12,622	4,741	2,328	373	5,200	1,175	4,533	44,662
7,437	10,520	5,363	3,463	902	5,301	1,973	6,146	46,826
7,151	10,983	8,383	3,618	1,406	8,316	3,091	4,729	57,764
6,843	12,354	5,227	5,428	1,713	7,770	2,881	4,668	48,939
8,831	14,877	8,747	3,798	2,287	8,300	4,097	6,204	59,030
6,033	4,850	5,862	4,763	4,491	5,891	3,989	3,864	62,150
5,766	5,056	3,985	3,920	3,300	3,179	2,979	2,583	47,843
6,968	6,235	3,924	3,519	3,273	3,789	2,867	8,265	67,112
7,184	7,389	4,856	5,606	7,032	6,165	5,759	12,747	92,778
5,290	8,597	6,080	4,479	6,239	6,429	7,786	9,941	83,289
5,799	7,335	5,555	6,383	6,845	7,850	4,897	9,488	78,453

Ⅲ－7 VALUE OF IMPORTS AND EXPORTS (by Country, and by Commodity)

Imports

Country of origin	Total	Live	Fresh and			
			Shrimps	Squids & cuttlefish	Octopuses	Skipjack, tunas and marlins
Total	1,046,745	27,442	341,217	59,580	33,567	81,514
Republic of Korea	153,770	2,966	4,886	11,611	3,923	39,174
U.S.A	176,678	380	42	1,272	-	771
Taiwan	94,883	18,723	14,408	972	-	25,681
Indonesia	62,469	17	55,316	2	-	1,519
China	41,505	2,758	19,877	182	4	9
India	71,520	-	69,813	1,397	-	-
Spain	28,324	-	-	8,116	16,615	1,702
Canada	62,784	113	565	198	-	475
Thailand	45,945	363	21,395	10,053	862	4
Australia	46,188	836	36,624	-	-	241
U.S.S.R.	18,932	-	543	67	-	-
Chile	12,876	-	-	0	-	-
Hong Kong	15,643	489	8,252	605	8	0
Malaysia	12,693	-	10,341	312	-	-

Exports

Country of destination	Total	Fresh and frozen products	Salted dried and smoked		
				Mackerels	Salmons
Total	262,830	49,783	13,377	33,140	107
U.S.A	60,938	18,174	2,027	104	6
Hong Kong	19,003	430	4,255	61	-
Nigeria	17,483	-	4	15,045	-
West Germany	11,079	1,506	17	2	-
Switzerland	9,488	92	2	2	-
Netherland	7,621	220	14	23	7
Taiwan	19,327	458	2,078	-	6
United Kingdom	7,335	109	42	-	33
Italy	4,234	2,947	12	20	-
Canada	5,799	323	122	59	-

OF FISHERY PRODUCTS,

1982

Unit: Million yen

frozen			Salted dried and smoked	Raw agar-agar	Fish meals	Pearls	Oil and fat	Prepared	Others
Salmons & trouts	Crabs	Others							
108,240	34,486	178,601	87,873	1,241	4,937	11,731	1,271	53,751	21,294
657	3,295	53,496	12,661	497	-	1	-	8,908	11,695
92,590	22,289	22,973	33,053	34	796	367	61	365	1,685
-	99	4,885	691	91	-	-	23	28,793	517
-	-	500	2,066	-	-	1,836	47	617	549
-	1,334	5,357	4,099	-	4	4,279	2	2,849	751
-	-	117	0	-	-	33	-	147	13
-	-	1,460	-	49	-	-	343	38	1
14,027	5,402	19,078	22,373	-	2	-	2	544	5
-	0	4,735	5,229	-	-	115	-	3,170	19
-	-	3,401	4	-	-	2,913	-	2,125	44
319	1,698	12,879	130	-	642	-	131	2,523	0
50	18	7,099	74	30	2,404	-	-	902	2,299
-	87	5,757	88	-	-	281	-	72	4
-	-	43	1,631	-	-	199	-	164	3

Unit: Million yen

Canned products				Oil and fat	Peals	Others
Sardines and anchovies	Tunas	Crab	Others			
26,145	12,502	157	19,828	13,028	51,746	43,017
715	5,933	139	5,507	135	19,601	8,597
271	20	4	346	17	4,810	8,789
2,402	16	1	14	-	-	1
-	5	-	196	2,703	6,457	193
31	724	-	1,228	-	7,337	72
159	28	-	64	6,672	254	180
-	31	-	24	210	12	16,508
685	-	-	2,594	1,950	1,183	739
-	14	0	47	2	669	523
27	2,495	-	1,815	3	753	202

Ⅲ－8 FOOD BALANCE SHEET ON

Description	1978	1979	1980	1981	1982
(FISH AND SHELLFISH) (Live weight base)	10,186	9,948	10,425	10,671	10,784
Domestic production					
For domestic consumption	10,695	10,736	10,734	11,121	11,325
Fresh and frozen	3,087	2,896	3,009	2,928	2,910
Dried, salted and smoked ..	2,120	2,244	2,393	2,379	2,414
Kneaded	2,100	1,968	1,870	1,939	1,928
Fish sausage	159	149	120	127	132
Canned	276	289	274	304	337
Feeds	2,953	3,190	3,068	3,444	3,604
For exports	1,046	1,015	1,023	1,019	1,263
Fresh and frozen	202	194	202	158	140
Canned	530	535	603	494	450
Others for food use	8	9	12	15	26
Feeds	306	277	206	352	647
Change in stock	Δ 76	Δ 96	357	128	Δ 277
For food use	Δ 32	Δ 90	Δ 35	10	79
For feeds	Δ 44	Δ 6	392	118	Δ 356
Imports	1,479	1,707	1,689	1,597	1,527
For food use	1,082	1,235	1,027	1,200	1,320
For feeds	397	472	662	397	207
Domestic supply	12,062	12,127	12,768	12,665	12,518
For food use	8,847	8,666	9,110	8,751	8,623
Domestic production	7,368	6,959	7,421	7,154	7,096
Imports	1,479	1,707	1,689	1,597	1,527
For feeds	3,215	3,461	3,666	3,914	3,895
Domestic production	2,818	2,989	3,004	3,517	3,688
Imports	397	472	662	397	207

FISHERY PRODUCTS, 1978～1982

Unit: Thousand metric tons

Description	1978	1979	1980	1981	1982
(WHALE)					
Domestic production	24	19	19	20	20
For domestic consumption	24	19	19	20	20
For exports	0	0	0	0	0
Imports	34	27	25	19	20
Domestic supply	58	46	44	39	40
For food use	58	46	44	39	40
For feeds	-	-	-	-	-
(SEAWEED) (dried weight base)					
Domestic production	128	129	139	120	126
For domestic consumption	124	123	133	115	120
For exports	4	5	6	5	6
Imports	43	49	55	51	53
Domestic supply	166	174	188	175	173
For food use	134	143	157	149	142
For feeds	32	31	31	26	31
Per capita food supply (unit : kgs)					
Fish and shellfishes	67.2	65.0	65.9	66.4	65.1
Whales	0.5	0.4	0.4	0.3	0.3
Seaweeds	1.2	1.2	1.3	1.3	1.2
Population (Unit: Million persons) 1).....	115	116	117	118	119

Note: 1) Data are based on the surveys undertaken as of October 1st of the year.

Ⅲ－9 AVERAGE CONSUMPTION IN QUANTITY OF FISHERY

(1) Workers household(Cities With population of 50,000 and over)

Unit: gram

Item	1978	1979	1980	1981	1982
Fresh and frozen					
Cod, Alaska pollack	732	732	774	706	661
Flounders, halibuts	2,641	2,653	2,754	2,856	2,828
Jack mackerel	2,211	2,390	2,122	1,836	2,585
Mackerels	3,170	2,740	2,806	2,678	1,808
Salmons, trouts	992	943	1,056	1,046	984
Sardines, anchovies	2,498	2,235	2,285	2,233	2,453
Saury	2,158	2,479	2,177	1,763	1,549
Sea breams	1,100	1,139	1,013	968	994
Shellfishes	5,775	5,673	5,400	5,709	6,075
Shrimp, prawn, crab	4,131	3,903	3,855	3,782	3,348
Skipjack	1,348	1,289	1,159	1,004	1,212
Squids, cuttlefishes	6,154	6,365	7,522	6,991	5,837
Tunas, marlins	3,925	3,617	3,540	3,513	3,331
Yellowtail	2,282	2,566	2,433	2,184	2,186
Others	15,138	16,471	14,617	14,501	15,283
Processed fishery products					
Boiled and dried anchovies .	647	609	687	639	700
Canned (case)	14.33	14.96	14.08	14.75	16.54
Cured	482	---	---	---	---
Dried anchovies	853	811	797	883	924
Dried jack mackerel	1,328	1,416	1,415	1,163	1,309
Dried "Kombu" and "Wakame"kelp	2,436	2,482	2,622	2,518	2,609
Dried squids	184	167	185	163	157
Fish sausage	2,467	2,451	1,866	1,614	1,510
Kneaded	---	---	---	---	---
Salted salmons and trouts .	3,245	3,329	3,716	3,769	3,765
Others	---	---	---	---	---
Whale meat	572	520	513	549	541
Beef	9,946	10,103	9,639	9,891	10,288
Pork	20,298	20,986	21,357	20,195	20,147
Chicken	13,210	14,111	14,440	14,179	14,747
Ham, Sausage	8,007	8,212	8,666	8,741	8,695
Milk, eggs	---	---	---	---	---
Seasonings	463	451	404	371	331
Expense for dining out.....	---	---	---	---	---
Number of family members ...	3.77	3.80	3.78	3.75	3.73

PRODUCTS PER HOUSEHOLD, 1978～1982

(2) Farm household

Unit: gram

Item	1978	1979	1980	1981	1982
Fishery products					
Fresh and frozen					
Cod, Alaska pollack	2,110	2,200	2,540	2,390	---
Flounders, halibuts	2,710	2,930	2,960	3,080	---
Jack mackerel	2,400	2,470	2,060	2,050	2,650
Mackerels	8,720	8,090	9,430	7,620	5,900
Salmons. trouts	---	---	---	---	---
Sardines, anchovies	5,530	5,520	6,050	5,570	5,080
Saury	3,510	4,170	4,160	3,200	2,600
Sea breams	870	890	940	910	1,000
Shellfishes	5,200	4,700	4,730	5,440	---
Shrimp. prawn. crab	2,370	2,340	2,590	2,590	1,610
Skipjack	4,160	3,950	3,850	3,140	3,280
Squids, cuttlefishes	6,710	7,120	8,660	7,850	7,800
Tunas, marlins	3,950	4,030	4,240	4,180	4,630
Yellowtail	2,390	3,230	3,080	2,880	3,380
Others	---	---	---	---	---
Processed fishery products					
Boiled and dried	2,530	2,650	2,670	2,830	---
Canned	3,920	3,930	3,850	3,730	---
Cured	850	860	860	830	---
Dried "nori"	---	---	---	---	---
Dried "kombu"and"Wakame"Kelp	2,140	2,310	2,500	2,600	---
Dried squids	540	570	750	730	---
Fish sausage	1,650	1,580	1,540	1,400	---
Kneaded	10,650	10,260	10,700	10,080	12,820
Salted salmons and trouts	3,260	3,780	4,320	4,040	4,900
Others	---	---	---	---	---
Whale meat	---	---	---	---	---
Beef	5,090	5,150	5,020	5,450	7,590
Pork	14,540	16,600	16,220	16,250	15,970
Chicken	11,890	12,810	13,130	12,940	13,420
Ham, sausage	6,360	6,860	---	---	---
Milk, eggs	---	---	---	---	---
Seasonings	1,100	1,170	1,080	1,000	---
Expense for dining out .	---	---	---	---	---
Number of family members	4.48	4.45	4.40	4.40	4.37

Ⅲ－10 AVERAGE CONSUMPTION IN VALUE OF FISHERY

(1) Workers household (Cities With population of 50,000 and over)

Unit: yen

Item	1978	1979	1980	1981	1982
Net income	3,672,984	3,963,132	4,196,232	4,445,244	4,758,864
Food expense	807,652	836,881	886,159	913,609	946,102
Fishery products	128,373	132,758	136,574	139,266	146,314
Fresh and frozen	67,118	69,477	72,278	72,566	76,174
Cod, Alaska pollack	512	518	572	526	494
Flounders, halibuts	2,995	3,137	3,398	3,574	3,706
Jack mackerel	2,495	2,756	2,667	2,583	3,294
Mackerels	1,357	1,226	1,371	1,405	1,053
Salmons, trouts	1,415	1,413	1,586	1,661	1,668
Sardines, anchovies	916	837	931	937	1,076
Sauries	1,692	1,634	1,518	1,546	1,737
Sea breams	2,114	2,257	2,289	2,213	2,391
Shellfishes	5,332	5,381	5,684	6,014	6,594
Shrimp, prawn, crab	8,305	8,614	8,959	9,073	8,502
Skates	1,784	1,874	1,895	1,756	2,122
Squids, cuttlefishes	6,608	6,871	7,268	6,799	6,815
Tunas, marlins	8,790	8,768	9,308	9,274	9,547
Yellowtail	4,974	5,382	5,358	5,146	5,154
Others	17,829	18,809	19,474	20,059	22,021
Processed fishery products ..	60,419	62,484	63,463	65,806	69,226
Boiled and dried anchovies .	810	793	907	869	1,013
Canned	2,716	2,734	2,832	3,099	3,471
Cured	1,415	1,456	1,452	1,517	1,591
Dried "nori"	5,067	5,547	5,797	5,677	5,392
Dried "Kombu" and "Wakame" Kelp	2,285	2,387	2,763	2,803	2,943
Dried squids	578	606	632	576	596
Fish sausage	1,709	1,682	1,286	1,141	1,059
Frozen	11,345	11,484	11,254	12,122	12,239
Salted salmons and trouts .	6,634	6,896	7,406	7,651	7,922
Others	27,860	28,899	29,134	30,351	33,000
Whale meat	835	798	833	895	914
Rice	27,675	28,904	30,116	31,017	32,704
Bread	29,429	29,090	29,596	29,944	30,444
Noodles	13,529	13,762	14,405	14,831	15,311
Confectionery	12,619	13,137	14,385	14,871	15,128
Milk, cream	41,543	42,661	44,895	45,859	44,815
Cooking oils	998	975	934	923	839
Expenses for eating out	114,408	126,467	134,092	130,358	139,710
Number of family members ...	3.77	3.80	3.78	3.75	3.73

PRODUCTS PER HOUSEHOLD, 1978～1982

(2) Farm household

Unit: yen

Item	1978	1979	1980	1981	1982
Net income	4,221,100	4,417,700	4,515,200	4,772,500	4,013,200
Food expense	828,500	855,100	903,500	939,900	958,700
Fishery products	123,372	127,855	141,749	143,337	149,505
Fresh and frozen	70,689	74,641	78,659	81,753	85,791
Cod, Alaska pollack	1,416	1,494	1,836	1,861	1,760
Flounders, halibuts	2,832	3,034	3,465	3,631	3,549
Jack mackerel	2,336	2,530	2,308	2,559	3,123
Mackerels	3,257	3,234	3,751	3,774	3,464
Salmons, trouts	---	---	---	---	---
Sardines, anchovies	1,558	1,633	1,772	1,816	1,955
Saury	2,336	2,430	2,444	2,251	2,452
Sea breams	1,841	1,965	2,186	2,236	2,442
Shellfishes	3,009	2,942	3,101	3,699	3,927
Shrimp, prawn, crab	4,602	4,901	5,651	6,002	5,867
Skipjack	3,611	3,599	3,830	3,691	4,200
Squids, cuttlefishes	6,933	7,656	8,867	8,313	8,289
Tunas, marlins	9,416	9,708	10,818	11,300	11,908
Yellowtail	4,744	5,551	6,188	6,145	6,550
Others	22,798	23,964	22,442	24,475	26,305
Processed fishery products	52,653	53,214	63,090	61,584	63,714
Boiled and dried anchovies	3,131	3,453	3,522	3,819	4,489
Canned	2,502	2,563	2,694	2,746	3,141
Cured	1,838	2,005	2,086	2,116	2,259
Dried "nori"	4,928	5,126	5,602	5,432	2,080
Dried "Kombu"and"Wakame"kelp	3,203	3,380	3,880	3,932	7,814
Dried squids	1,735	1,919	2,479	2,341	5,588
Fish sausage	998	1,009	1,007	975	1,332
Kneaded	9,498	9,655	10,689	10,939	11,754
Salted salmons and trouts	5,734	6,686	7,438	7,465	8,498
Others	19,086	17,418	23,693	21,819	16,759
Whale meat	---	---	---	---	---
Beef	13,860	14,615	14,947	16,634	18,148
Pork	21,231	21,806	22,328	22,719	23,162
Chicken	11,988	12,182	13,233	13,565	14,282
Ham	5,985	6,408	6,924	7,473	7,856
Milk, eggs	36,992	38,800	40,700	41,259	41,909
Seasonings	2,120	2,291	2,286	2,213	2,304
Expense for dining out	61,310	65,251	73,172	76,726	79,728
Number of family members	4.48	4.45	4.40	4.40	4.37

Ⅳ ECONOMY OF FISHERY ESTABLISHMENTS

Ⅳ－1 NATIONAL AVERAGE OF FISHERIES HOUSEHOLD ECONOMY, 1978～1982

Item	Unit	1978	1979	1980	1981	1982
Number of family members	Person	4.3	4.3	4.3	4.1	4.1
Number of non-powered fishing boats used	Boat	0.3	0.3	0.3	0.3	0.3
Number of powered fishing boats used	"	1.0	1.0	1.0	1.1	1.1
Tonnage of powered fishing boats used	Ton	2.6	2.7	2.7	2.7	2.8
Number of fishing days	Day	151	150	148	145	146
Number of workers on the sea	Person	478	478	474	456	466
Working hours on the sea	Hours	2,552	2,558	2,502	2,391	2,464
Catches	kg	11,388	9,916	9,605	9,105	9,322
Price of fish cought	Yen/kg	358	449	480	-	-
Fishery earning	1000 yen	4,158.9	4,528.3	4,695.6	4,468.0	4,820.8
Non-fishery earning	"	503.6	458.8	413.8	408.5	436.9
Non-business earning	"	1,641.7	1,885.4	2,030.8	2,269.0	2,504.3
Fishery expenditure	"	1,895.6	2,135.4	2,258.7	2,282.4	2,538.5
Employees wages	"	417.9	454.4	396.1	361.9	397.8
Maintenance of fishing boats	"	158.1	165.4	162.5	161.3	170.2
Expenditure for fishing gears	"	183.1	183.2	179.8	178.4	191.1
Oil	"	254.3	345.7	471.9	493.6	569.8
Miscellaneous facilities	"	18.9	21.9	20.1	13.3	17.1
Depreciation	"	413.1	480.5	508.2	552.5	619.4
Non-fishery business expenditure	"	284.5	243.9	197.7	199.1	207.7
Non-business expenditure	"	114.4	132.6	120.2	147.4	152.2
Household expenditure	"	2,722.4	2,890.1	3,114.8	3,262.4	3,341.5
Taxes, public charges and obligation	"	389.8	443.6	467.3	520.5	566.2
Income of fishery household	"	4,009.7	4,360.6	4,563.6	4,516.6	4,863.6
Business income	"	2,482.4	2,607.8	2,653.0	2,395.0	2,511.5
Fishery income	"	2,263.3	2,392.9	2,436.9	2,185.6	2,282.3
Non-fishery income	"	219.1	214.9	216.1	209.4	229.2
Non-business income	"	1,527.3	1,752.8	1,910.6	2,121.6	2,352.1
Surplus of fishery household economy	"	897.4	1,026.9	981.5	733.7	955.9
Property						
Fixed assets	"	6,980.3	7,660.0	7,921.3	8,240.3	9,020.0
Land	"	638.9	876.2	886.4	894.0	1,141.5
Building	"	3,561.1	3,718.3	3,862.3	3,962.0	4,274.9
Hull of fishing boats	"	966.0	1,055.6	1,067.7	1,139.6	1,218.4
Engines of fishing boats	"	896.7	1,018.1	1,103.9	1,195.6	1,240.2
Fishing nets and long lines	"	246.4	277.1	271.3	286.9	302.6
Non-fixed assets	"	5,614.4	6,362.8	6,979.8	7,504.6	7,947.0
Debts	"	1,624.5	1,887.4	1,914.1	2,092.0	2,364.8

Notes: 1) Fishery household in this table refers to the household engaging in fishing with less than 10 tons fishing boat. The data show the average per fishery household.
2) Income of fishery household = Fishery income + Non-fishery business income + Non-business income. Surplus of fishery household economy = Income of fishery household - (Taxes, public charges and obligations + household expenditure)
3) Duration of this statistics is for a calendar year. Property is accounted at the beginning of the year.

Ⅳ－2 NATIONAL AVERAGE OF SMALL AND MIDDLE SIZE FISHERY ENTERPRISE ECONOMY, 1978～1982

Item 1), 2)	Unit	1978	1979	1980	1981	1982
Gross tonnage of fishing boats used	Ton	94.81	93.18	93.61	88.21	90.19
Number of workers on the boat	Person	15.1	14.4	13.9	12.9	12.8
Earnings from fishery	1000 yen	121,128	124,780	134,152	131,323	143,826
Fishery expenditures	"	120,538	121,091	135,914	132,856	142,304
Employees wages	"	47,080	45,946	47,396	46,506	49,561
Maintenance of fishing boats ..	"	9,257	8,852	8,822	8,427	8,710
Expenditure for fishing gears .	"	4,355	4,230	4,671	4,428	4,741
Oil	"	13,986	17,515	28,159	28,732	31,287
Bait	"	4,165	3,851	3,850	3,583	3,729
Ice	"	1,386	1,308	1,419	1,320	1,448
Fish container	"	1,534	1,598	2,070	1,789	1,839
Miscellaneous materials	"	1,512	1,431	1,428	1,433	1,510
Miscellaneous facilities	"	220	232	254	214	252
Rents and charge	"	2,373	2,463	2,850	2,607	2,984
Brokerage	"	5,082	5,380	5,861	5,605	6,138
Costs for business	"	6,467	6,078	6,372	6,439	6,383
Tax upon fishery business	"	1,008	965	915	733	827
Other	"	5,558	6,205	6,893	6,338	6,944
Depreciation	"	16,555	15,037	14,954	14,703	15,949
Estimated family wages	"	1,343	1,403	1,457	1,477	1,662
Fishery profit 3)	"	Δ 753	2,286	Δ 3,219	Δ 3,010	Δ 140
Assets (final)	"	159,038	160,532	161,269	159,480	168,613
Fixed assets	"	81,428	87,578	91,909	88,998	93,836
Fixed assets for fishery	"	55,239	60,053	62,137	61,064	63,275
Non-fixed assets	"	77,610	72,954	69,360	70,482	74,778
Liabilities (final)	"	143,463	144,472	149,979	153,986	162,684
Net worth	"	15,575	16,060	11,290	5,494	5,930
Net profit	"	2,437	2,275	Δ 2,189	Δ2,504	563
Interest on liabilities	"	6,196	6,413	7,604	7,948	8,155
Sales profit 4)	%	Δ 0.6	1.8	Δ 2.4	Δ 2.3	Δ 0.1
Costs for physical expenditure ...	1000 yen	57,824	59,005	70,990	69,723	74,860
Added value	"	63,304	65,775	63,162	61,600	68,966
Added value per worker	"	4,192	4,568	4,512	4,775	5,388
Wage per worker	"	3,118	3,191	3,410	3,605	3,872
Capital equipment ratio 5)	"	4,089	4,544	5,109	5,524	5,623
Ratio of net worth out of total capital	%	9.8	10.0	7.0	5.9	4.1
Ratio of profit out of total capital	"	1.6	1.4	Δ 1.4	Δ 1.6	0.3

Notes: 1) Small and middle size fishery enterprise refers to the enterprise engaging in fishery with fishing boats of 10 gross tonnage and over but excluding the big enterprises with capital paid of 100 million yen and over.
2) Data show an average per fishery enterprise.
3) Fishery profit = Earnings from fishery - fishery expenditures - estimated family wages.
4) Sales profit = Fishery profit ÷ earnings from fishery x 100.
5) Capital equipment ratio means fixed assets for fishery per worker engaged normally in fisheries.

REFERENCE TABLES

1 CATCH BY COUNTRY OF THE WORLD, 1977～1981

Unit: Thousand metric tons

Country	1977	1978	1979	1980	1981
Total	71,777	73,629	74,505	75,731	77,826
Japan	10,763	10,824	10,589	11,124	11,306
U.S.S.R.	9,352	8,930	9,069	9,496	9,565
China	5,888	5,986	5,561	5,825	5,992
U.S.A.	3,141	3,578	3,671	3,797	3,816
Peru	2,535	3,472	3,682	2,751	2,751
Norway	3,546	2,714	2,768	2,536	2,700
India	2,312	2,306	2,340	2,438	2,415
Republic of Korea	2,419	2,315	2,420	2,408	2,810
Thailand	2,190	2,101	1,948	1,794	1,651
Denmark	1,806	1,740	1,738	2,026	1,814
Chile	1,349	1,959	2,697	2,891	3,503
Indonesia	1,572	1,648	1,748	1,848	1,869
Korea D.P.R.P.	1,190	1,260	1,330	1,400	1,500
Iceland	1,378	1,579	1,661	1,525	1,449
Philippin	1,540	1,580	1,581	1,672	1,737
Canada	1,270	1,401	1,445	1,362	1,594
Spain	1,394	1,380	1,212	1,271	1,269
Viet Nam	1,014	1,014	1,014	1,014	1,014
Brazil	748	803	855	850	900
France	760	805	780	831	797
Mexico	670	739	925	1,278	1,392
Bangladesh	643	645	646	650	687
South Africa	605	631	669	651	614
Poland	655	571	601	640	630
Malaysia	619	685	696	736	796
England and Wales	526	549	494	398	350
Burma	519	541	565	585	625
Argentina	392	542	581	400	374
Nigeria	504	519	535	480	496
Scotland	445	457	383	400	476
Ecuador	434	617	608	671	686

2 CATCH BY SPECIES OF THE WORLD, 1977～1981

Unit: Thousand metric tons

	1977	1978	1979	1980	1981
Total	71,777	73,629	74,505	75,731	77,826
Carps, barbels and other cyprinids	577	586	607	623	706
Tilapias and other cichlids.....	351	327	333	373	416
Miscellaneous freshwater fishes...	4,931	4,850	4,988	5,176	5,442
Sturgeons, padolefishes, etc.	32	28	29	29	29
River eels	70	75	86	94	87
Salmons, trouts, smelts, etc.	637	631	760	801	856
Shads, milkfishes, etc.	770	815	770	774	805
Miscellaneous diadromous fishes ..	144	145	148	119	144
Flounders, halibuts, soles, etc. .	1,084	1,209	1,149	1,085	1,089
Cods, hakes, haddocks, etc.	10,592	10,299	10,603	10,746	10,601
Redfishes, bases, congers, etc. ..	5,684	5,585	5,297	5,305	5,213
Jacks, mullets, sauries, etc.	8,784	8,116	7,854	7,301	7,991
Herrings, sardines, anchovies etc.	12,631	14,368	15,724	16,138	17,456
Tunas bonitos, billfishes, etc. .	2,348	2,462	2,405	2,550	2,453
Mackerels,sneks,cutlassfishes,etc.	4,069	4,755	4,425	4,033	3,665
Sharks, rays, chimaeras, etc.	556	593	580	598	601
Miscellaneous marine fishes	7,749	7,646	7,337	7,971	8,546
Freshwater crustaceans	84	91	91	97	100
Sea-spiders, crabs, etc.	693	766	810	821	831
Lobsters, spiny-rock lobsters,etc.	100	106	112	106	106
Squat-lobsters, nephrops, etc. ...	88	85	77	56	72
Shrimps, prawns, etc.	1,670	1,692	1,574	1,700	1,698
Krill,plankonic crustaceans,etc. .	122	143	333	477	448
Miscellaneous marine crustaceans..	59	61	70	67	68
Freshwater molluses	161	203	255	272	253
Abalones, winkles, conchs, etc. ..	72	72	77	87	90
Oysters	860	899	871	970	946
Mussels	628	577	607	618	653
Scallops, pectens, etc.	406	432	404	368	569
Clams, cockles, arkshells, etc. ..	1,132	1,122	1,077	1,199	1,251
Squids,cuttlefishes,octopuses,etc.	1,231	1,330	1,522	1,530	1,304
Miscellaneous marine molluscs	136	130	136	145	131
Porpoises, dolphins, etc.	4	3	3	4	2
Miscellaneous aquatic mammals	1	2	1	1	2
Frogs and other amphibians	1	1	1	1	1
Turtles and other reptiles	7	10	8	6	6
Sea-quirts and other tunicates ...	7	6	4	6	5
Horseshoe crabs and other arachnoids	0	0	0	0	0
Sea-urchins, sea-cucumbers, etc....	61	62	66	56	59
Miscellaneous aquatic invertebrates	101	79	81	26	31
Pearls,mother-of-pearl,shells,etc.	11	8	7	7	6
Corals	0	0	0	0	0
Sponges	0	0	0	0	0
Aquatic bird guano, eggs, etc. ...	39	34	36	46	32
Brown seaweeds	2,380	2,421	2,357	2,470	2,183
Red seaweeds	577	703	737	790	799
Green seaweeds and other algae ...	2	3	3	9	4
Miscellaneous aquatic plants	97	98	90	80	76

APPENDIX

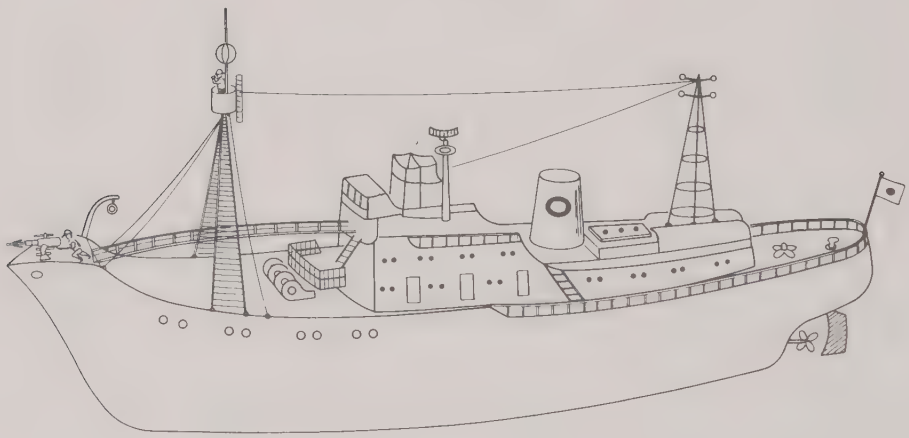
ILLUSTRATION OF TYPES OF FISHERIES

1. Mother Ship Type Whaling

Catcher boat

Mother ship

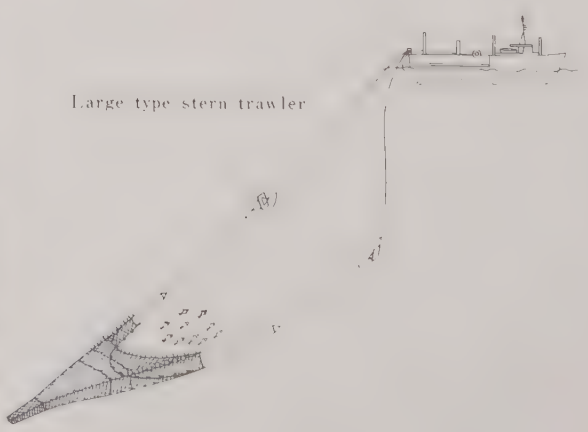
Catcher boat



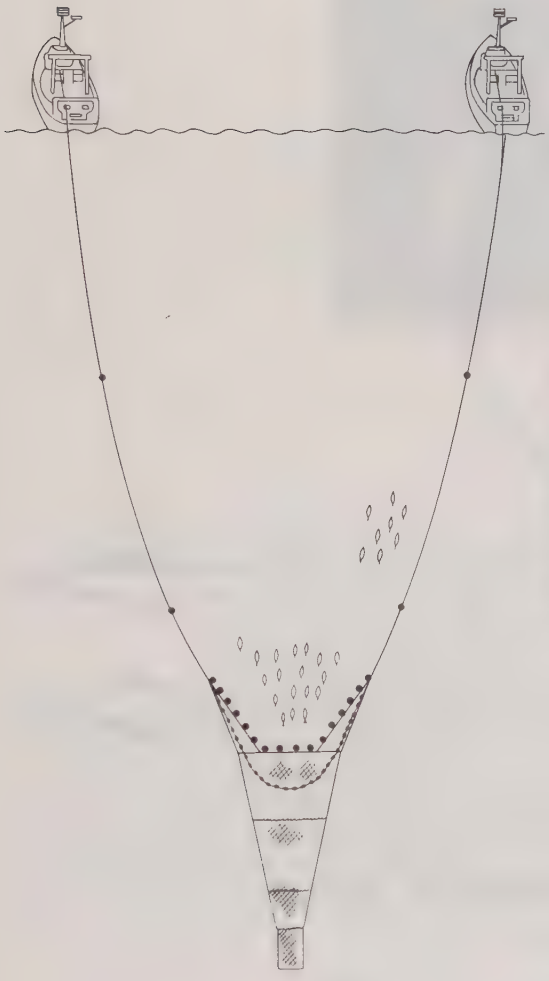
2. Distant Water Trawl

1500 Tonnage type stern trawler

Large type stern trawler

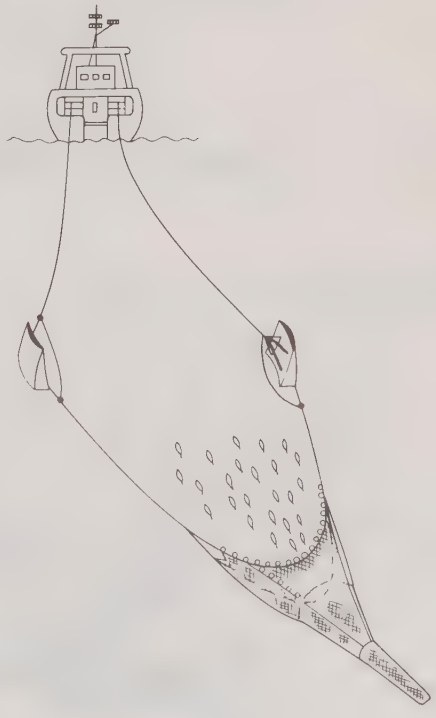


3. Large Trawl in East China Sea



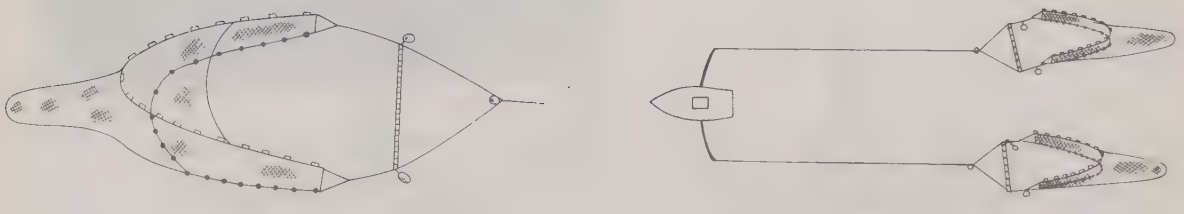
4. Medium Trawl

124 Tonnage type stern trawler

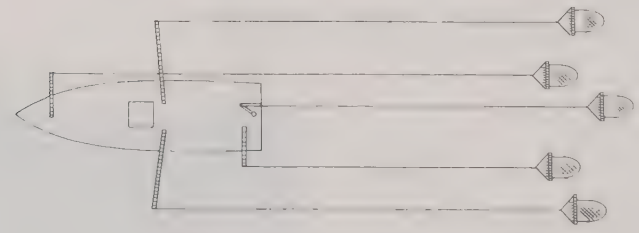


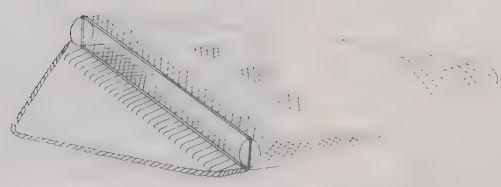
5. Small Trawl

Small trawler for shrimps

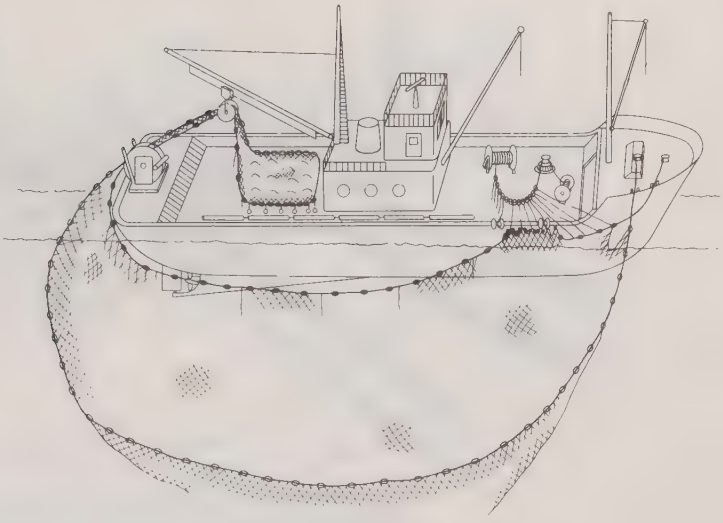


6. Small Trawl With Drag Nets for Scalop

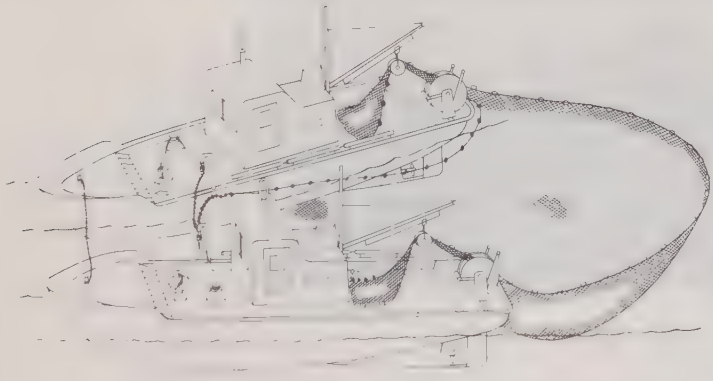




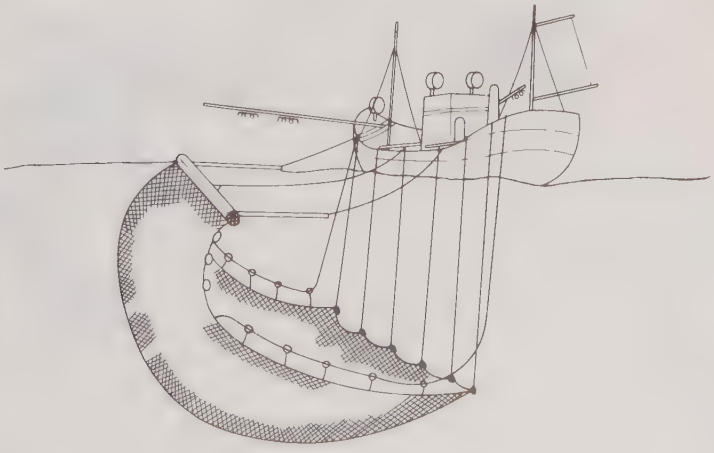
7. Purse Seine (One Boat Operation)



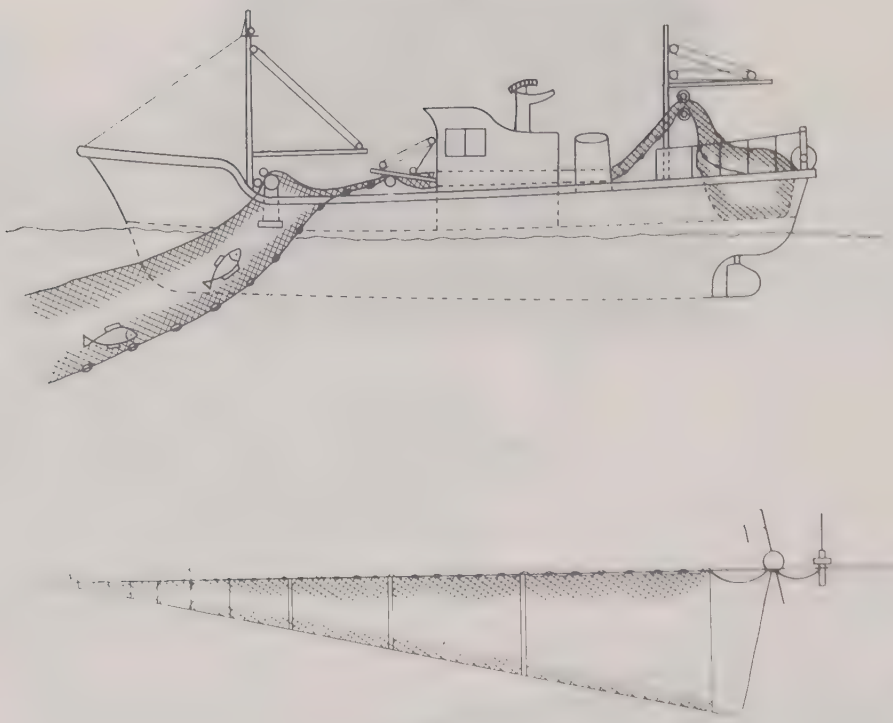
8. Purse Seine (Two Boats Operation)



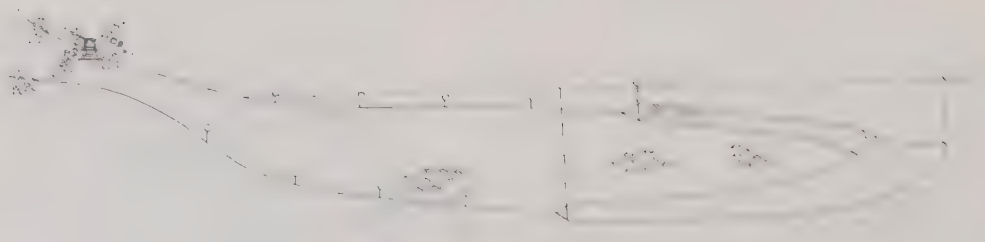
9. Saury Stick-Held-Dip Net



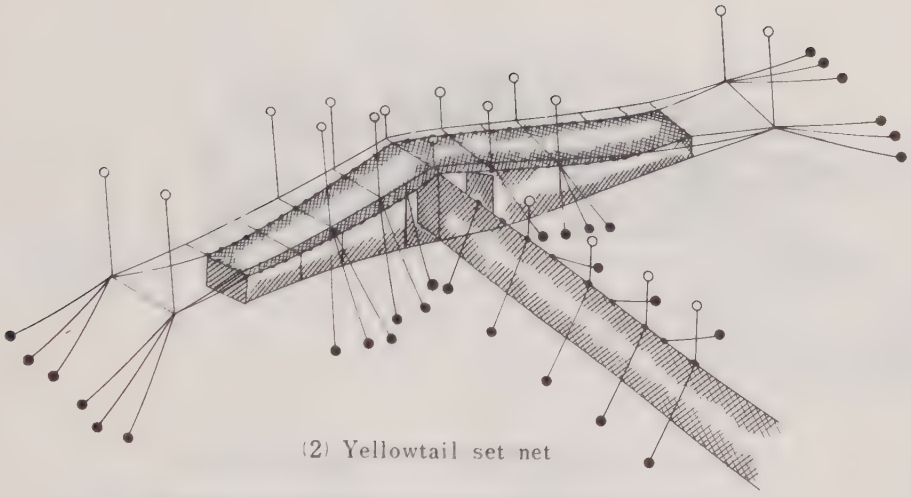
10. Salmon Drift Gill Net



11. Beach Seine

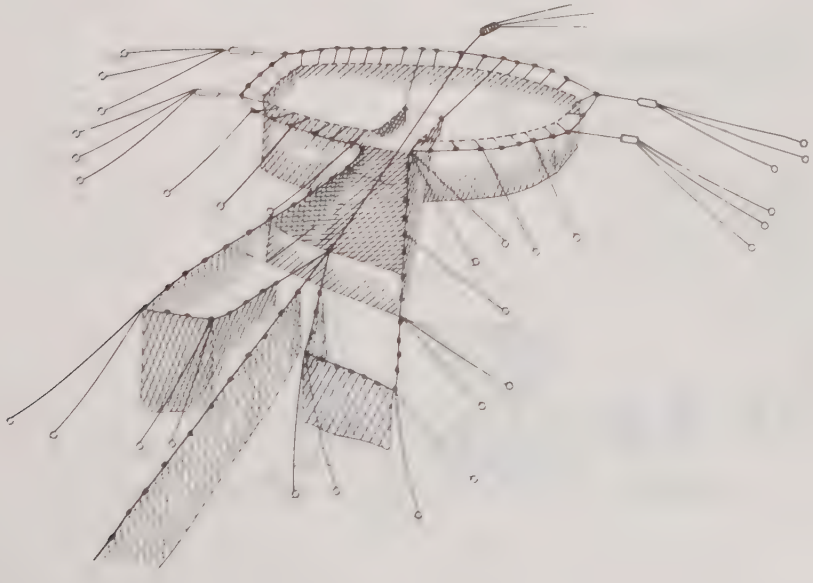


(1) Salmon set net

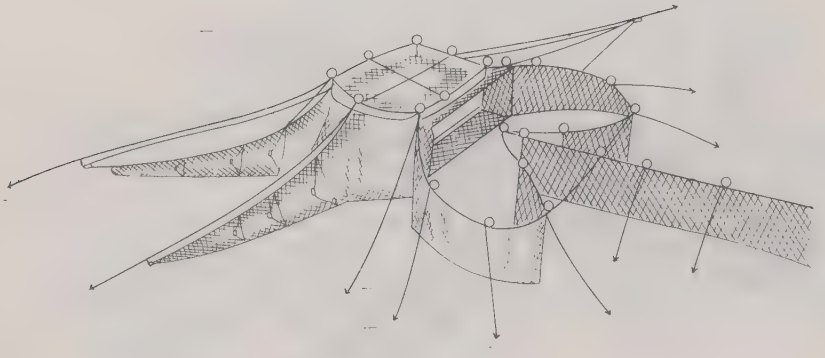


(2) Yellowtail set net

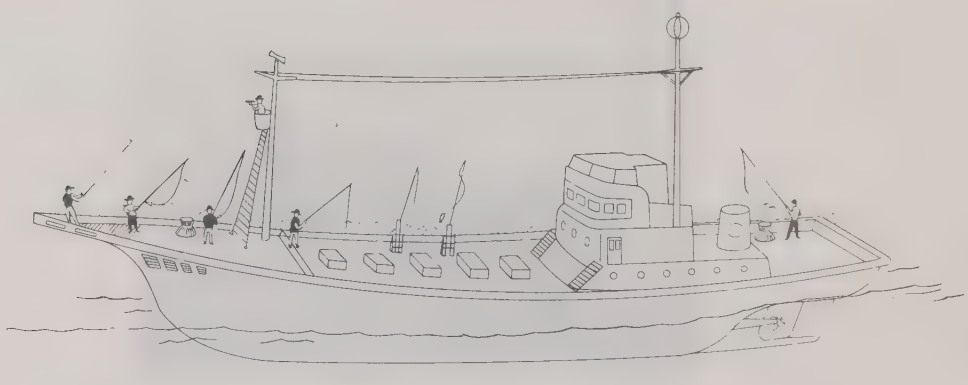
(3) Sardine set net



12. Small Set Net

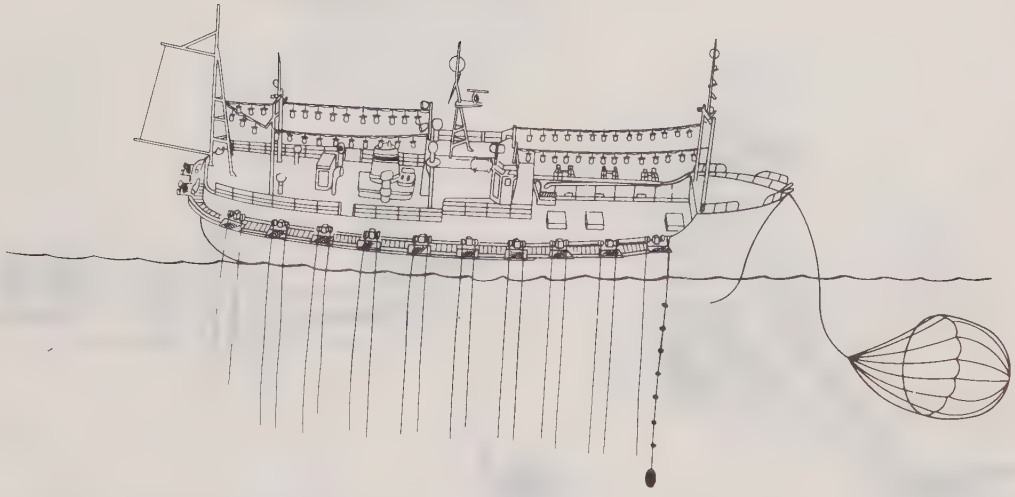


13. Skipjack Pole-and-Line



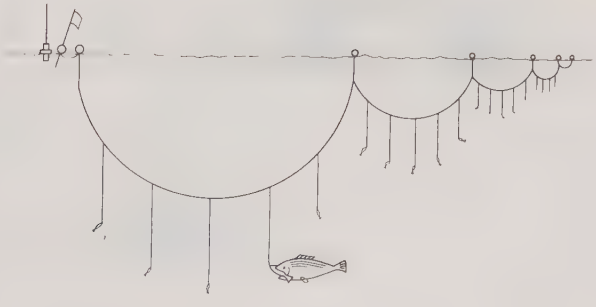
14. Mackerel Pole-and-Line

15. Squid Angling

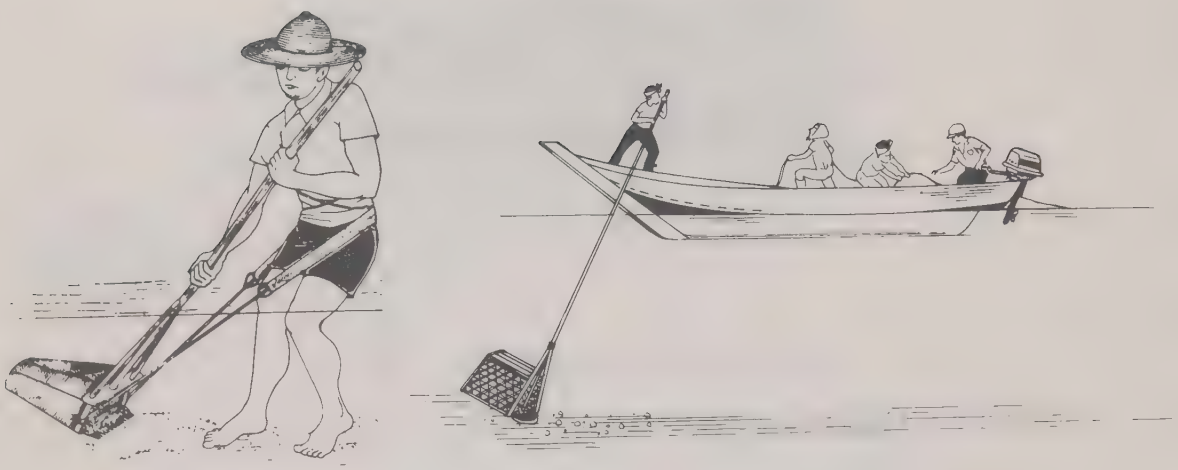


16. Other Angling (Trolling)

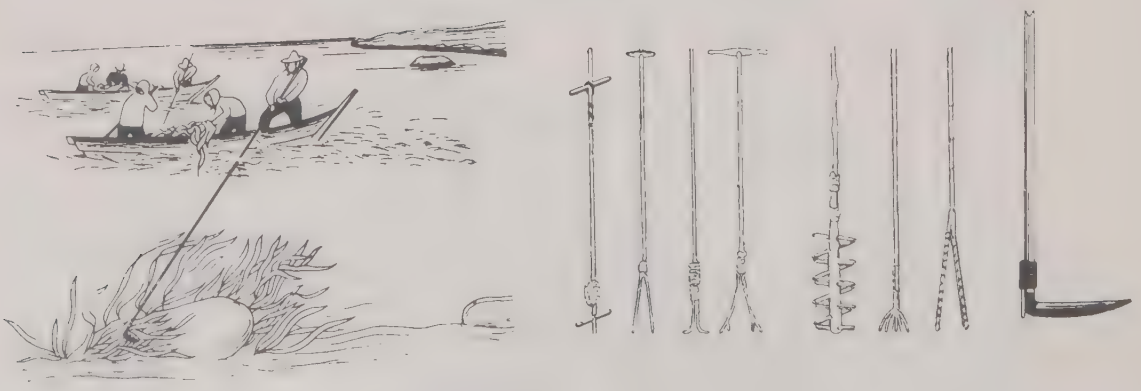
17. Tuna Long Line



18. Shellfish Collecting



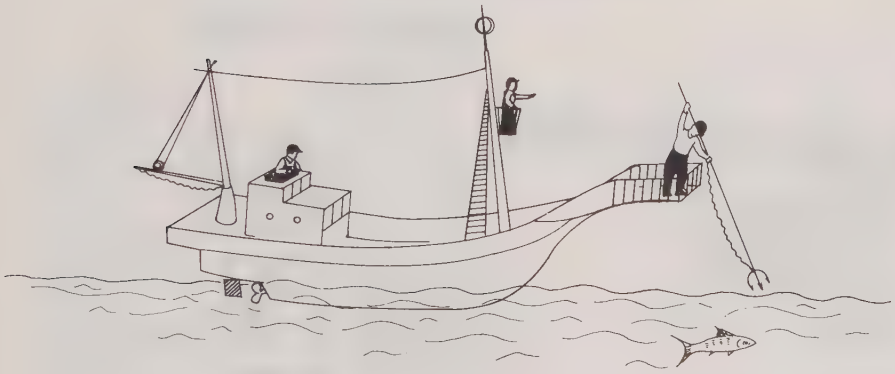
19. Seaweed Collecting



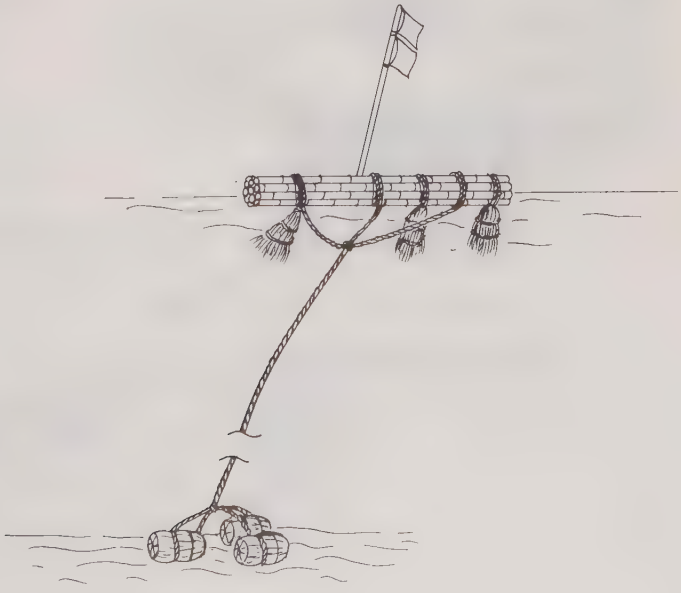
20. Other Fisheries

(1) Traps for octopus

(2) Dart

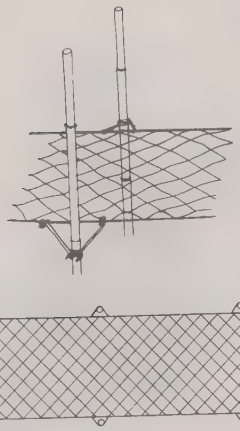


(3) "Tuke" luring fishery



21. "Nori" Laver Culture

"Nori" laver culture by stakes

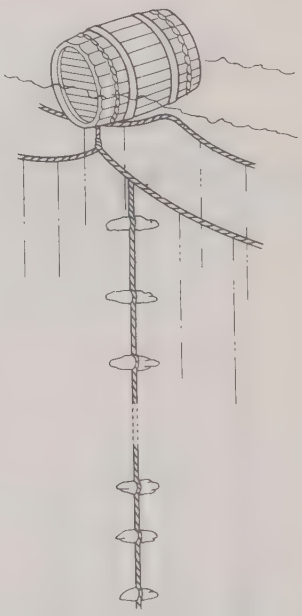


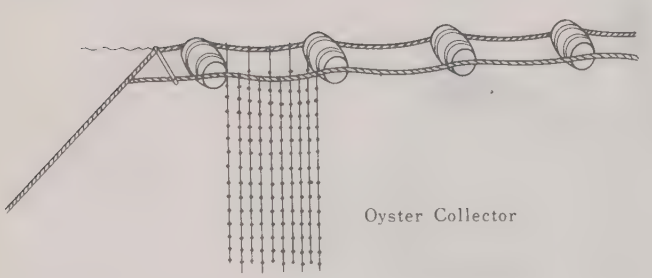
Spore collector with bamboo screen

"Nori" larver culture by floating nets

22. Oyster Culture

Long line type

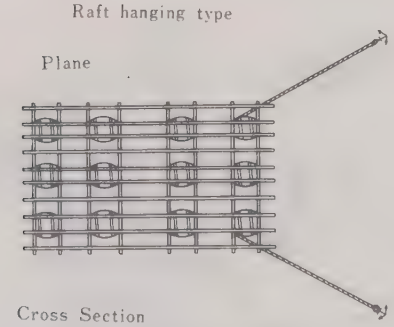




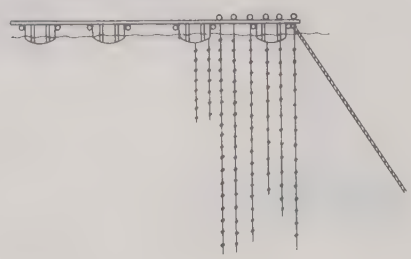
Oyster Collector

Raft hanging type

Plane

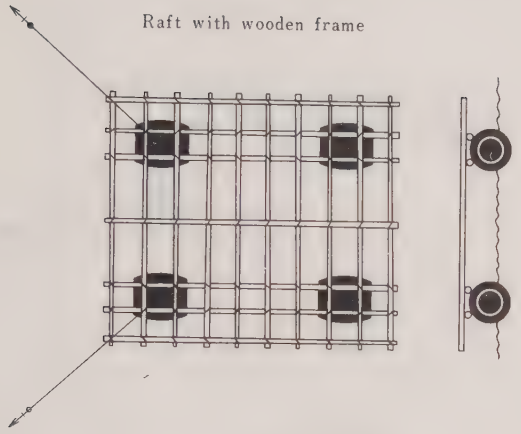


Cross Section

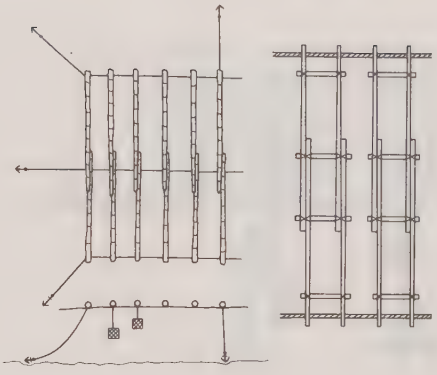


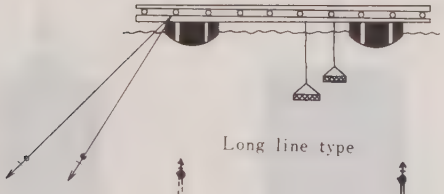
23. Pearl Culture

Raft with wooden frame

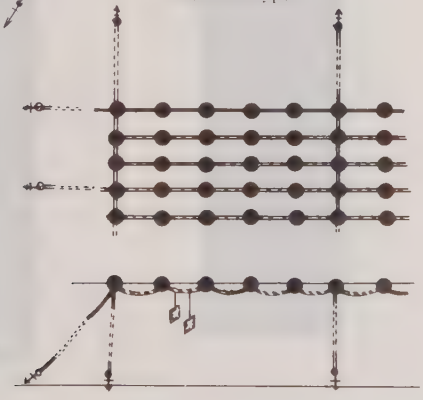


Wooden raft

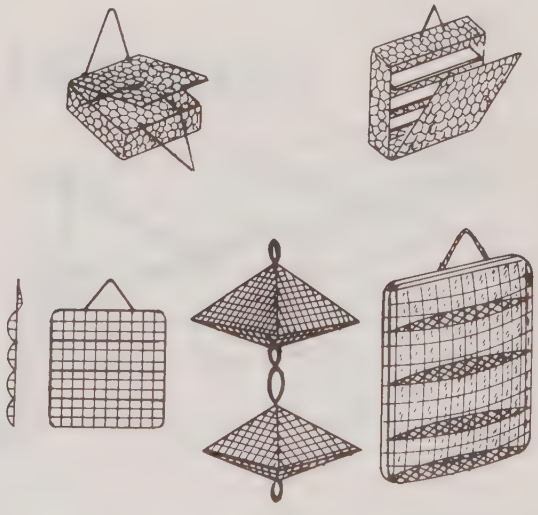




Long line type

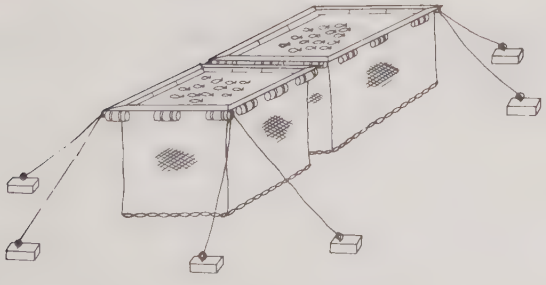


Types of baskets



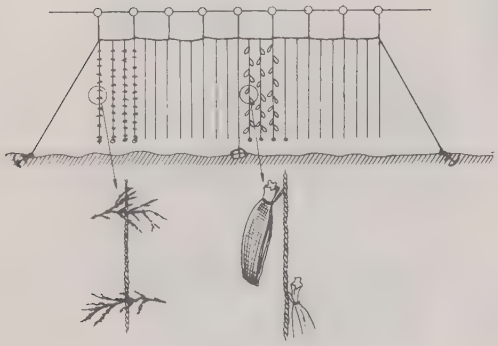
24. Yellowtail Culture

Net cage type

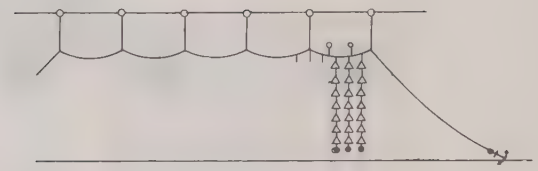


25. Scalop Culture

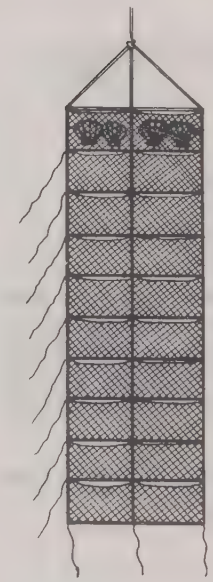
Seed collector



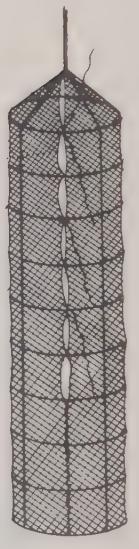
Long line type



Pocket net type

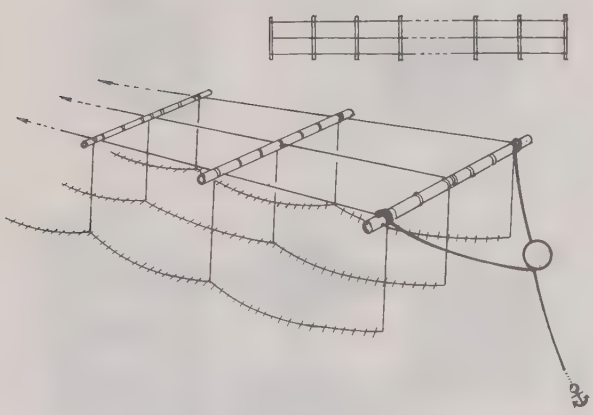


Basket type

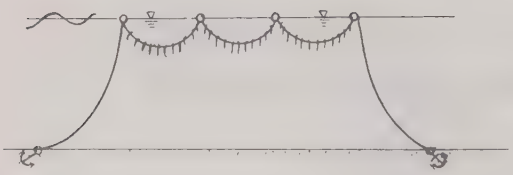


26. "Wakame" Seaweed Culture

Raft type



Long line type



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